

Deterrence and Influence: The Navy's Role in Preventing War

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Executive Summary

A central tenet of the U.S. Navy's new Maritime Strategy is that preventing wars is as important as winning wars.¹ This emphasis on war prevention has generated new research on maritime contributions to deterrence. OPNAV N51 (Director, Strategy and Policy Division) asked CNA to identify and analyze how maritime capabilities, assets, and operations contribute to conventional deterrence in the current and emerging international security environment.

Deterrence has always been one of the central strategic principles of war prevention. But now, with the end of the Cold War and the rise of a new generation of security challenges, deterrence strategies need to be updated. As Admiral Michael Mullen, the current Chairman of the Joint Chiefs of Staff, recently noted, "It is way past time to reexamine our strategic thinking about deterrence."²

This study examines one aspect of deterrence that has traditionally been overlooked – conventional deterrence. Our objective is to analyze how U.S. non-nuclear capabilities can be used to deter conventional aggression, and to examine the role of maritime power in preventing conventional conflicts.

We address two central questions in this study:

- What are the central concepts and principles of conventional deterrence in the modern international security environment? How does conventional deterrence work?
- What are the unique contributions of maritime power to conventional deterrence?

¹ *A Cooperative Strategy for 21st Century Seapower*, October 2007, p. 2.

² Admiral Michael G. Mullen, "It's Time for a New Deterrence Model," *Joint Forces Quarterly* (October 2008), p. 2. ADM Mullen continues, "A big part of our credibility, of course, lies in our conventional capability...we must therefore address our conventional force structure and its readiness as a deterrent factor, especially after 7 years at war."

The relevance of conventional deterrence

In the coming decades, shifts in the balance of global military, economic, and political power may increase the chances of inter-state crises and conflict. In this environment, U.S. conventional power can play an important role in deterring regional aggression.

Compared to U.S. nuclear capabilities, the threat of our conventional power is more likely to be a credible deterrent against conventionally-armed regimes. Historical and theoretical research suggests that, in general, the possession of nuclear weapons does not provide additional deterrent leverage against states that do not have nuclear (or chemical/biological) weapons.³ While nuclear weapons may not be a credible threat against non-WMD regimes, the threat of conventional force is highly credible, largely because the United States has overwhelming conventional superiority and a demonstrated willingness to use it.

Conventional deterrence can also play a role against countries that have nuclear weapons. A nuclear-armed adversary may be emboldened to use conventional force against U.S. friends and allies, or to sponsor terrorism, in the belief that its nuclear capabilities provide it with an effective deterrent shield against U.S. retaliation and/or intervention in regional conflicts. In this context, the combination of the forward presence of robust conventional power, coupled with missile defenses and nuclear escalation dominance, can help prevent a regime from believing that its nuclear arsenal provides opportunities for aggression and coercion below the nuclear threshold.

The strategy of conventional deterrence

The strategy of conventional deterrence has traditionally been based largely on “deterrence by denial” – the threat to deny an opponent the ability to achieve its military and political objectives through aggression. Denial is likely to continue to be the most effective mechanism of conventional deterrence. However, given the variety of adversaries that the United States may need to deter in future contingencies, the threat of imposing unacceptable costs in response to aggression – “deterrence by punishment” – may also play an important role.

³ For example, nuclear possession did not give the United States significant advantages before or during the Korean and Vietnam wars; nor did it prevent Israel from being attacked by Egypt in 1973 or the British-controlled Falkland Islands from being attacked by Argentina in 1982. See, for example, T.V. Paul, “Nuclear Taboo and War Initiation in Regional Conflicts,” *Journal of Conflict Resolution* (December 1995), pp. 696-717.

Overall, denial has an important advantage over punishment in the conventional context: if conventional deterrence fails and a conflict occurs, a force posture designed for deterrence by denial is more easily transformed into a capability to engage in conflict, control escalation, and win the war. According to Lawrence Freedman, one of the most influential scholars of deterrence, "In principle, denial is a more reliable strategy than punishment because, if the threats have to be implemented, it offers control rather than continuing coercion. With punishment, the [adversary] is left to decide how much more to take. With denial, the choice is removed."⁴

If conventional deterrence is based primarily on the threat to deny the adversary the objectives it seeks through aggression, then "local" military power – those U.S. forces that are already in the area or that can be rapidly deployed to the theater – are most important. The local power balance plays a critical role in conventional deterrence, since forces that are already in the region, or that can be quickly deployed to the region, are most likely to have the biggest impact on an opponent's calculations about its ability to achieve its objectives.

The role of maritime power in conventional deterrence

In order to derive the overall military, and then the specific maritime, contributions to conventional deterrence, we developed a list of "abilities" that military assets and operations can communicate to potential adversaries. This approach reflects the fact that credible deterrence must be communicated, and that the military's primary contribution to deterrence is through fielding capabilities, and conducting visible operations with those capabilities, that convey information about our *ability* to impose punishment and deny benefits, as well as information about U.S. global interests, commitments, and political resolve.

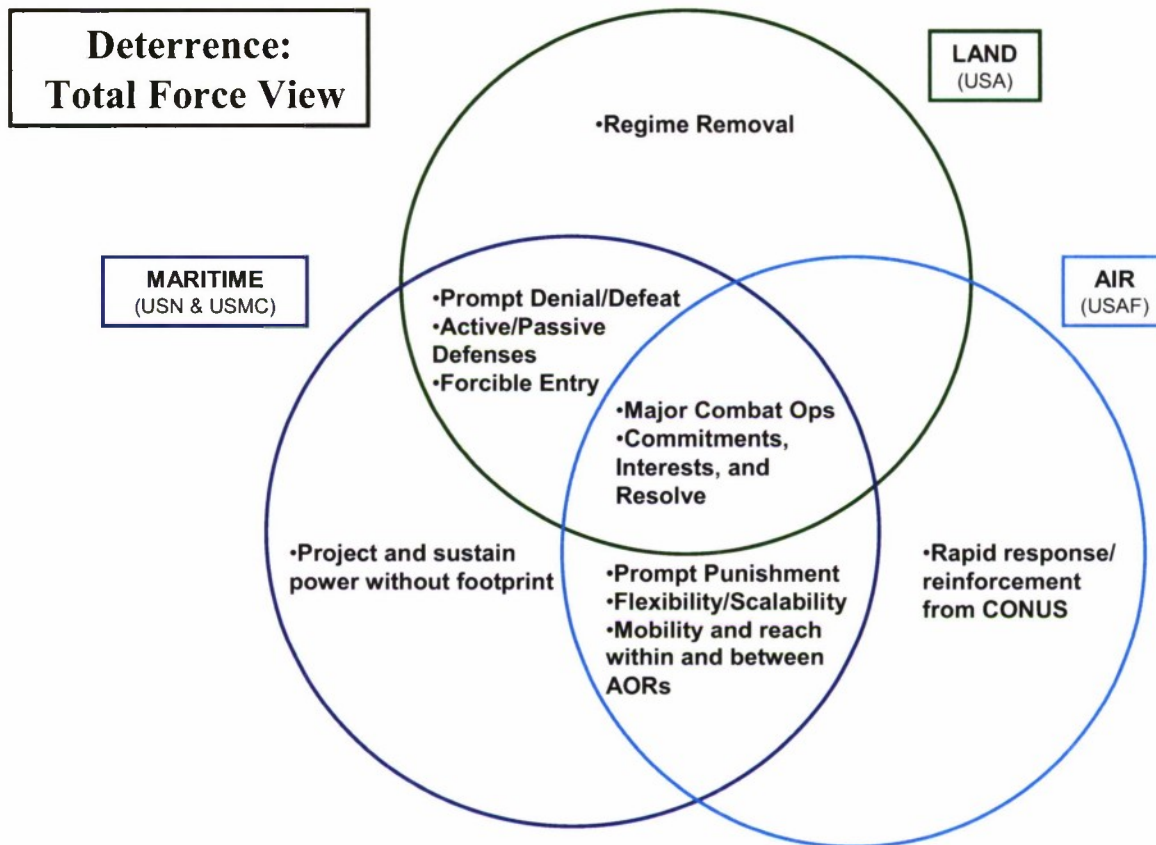
In our research, we identified 11 specific abilities that the U.S. military could communicate to potential adversaries that contribute to credible deterrence. These abilities, if properly signaled, can affect a leader's cost/benefit calculations about aggression. In no particular order, they are:

- Prompt denial/defeat
- Prompt punishment
- Expression/demonstration of U.S. commitments, interests, and resolve
- Forcible entry
- Project and sustain power without footprint
- Mobility and reach within and between AORs

⁴ Lawrence Freedman, *Deterrence* (Cambridge: Polity Press, 2004), p. 39.

- Flexibility/scalability for proportional response
- Rapid response/reinforcement from CONUS
- Regime removal
- Active/passive defenses
- Major combat operations

The following framework arranges these abilities according to compatible Service roles and missions. The abilities have been placed in discrete locations in the framework, but this does not mean that other Services are incapable of communicating a particular ability. What it does mean, however, is that certain Services have an *overall comparative advantage*. By using such a model, a balanced force can be created that properly and efficiently uses the various contributions of each of the Services.



This framework demonstrates that maritime power can help communicate – and, if necessary, execute – many of the abilities necessary for successful conventional deterrence. But it also shows that, overall, it shares most of the abilities with the other Services. What, then, is the unique role of maritime power?

Compared to air and land forces, maritime power has two inter-related characteristics that make it unique and particularly useful to the modern conventional (as well as nuclear) deterrence mission:

- Maritime forces can project and sustain forward-deployed, combat-credible power in peacetime, crises, and war
- Maritime power is minimally intrusive; in other words, it does not require a footprint on land

The fact that naval forces can “loiter” *and* be minimally intrusive is an important and unique contribution to deterrence. The Army can loiter, but it cannot be minimally intrusive; the Air Force can be minimally intrusive (although, because it still needs some land-based infrastructure, it is more intrusive than maritime forces), but it cannot loiter. Only naval forces can do both simultaneously.

These unique characteristics are likely to be especially useful for conventional deterrence. Given that an adversary is likely to pay close attention to the local balance of power, naval forces can rapidly respond to an emerging crisis by bringing U.S. combat power to places where none existed before, or by augmenting existing forces already in theater to further swing the local power balance in the United States’ favor. The ability to quickly deploy, and indefinitely sustain, power in a region helps ensure that an opponent cannot hope to wait out U.S. forces in the belief that at some point there will be a favorable “window of opportunity” for aggression.

Deterrence and Influence

Introduction

The new Maritime Strategy's emphasis on preventing wars, in conjunction with a recent report by the CNO Executive Panel on deterrence and escalation, has generated new discussion and research on the Navy's role in deterrence. OPNAV N51 (Director, Strategy and Policy Division), asked CNA to identify and analyze how maritime capabilities, assets, and operations contribute to conventional deterrence in the current and emerging international security environment.

Deterrence is one of the primary mechanisms of war prevention, and the rise of a new breed of security challenges since the end of the Cold War requires updated deterrence strategies that combine both kinetic and non-kinetic capabilities, and are designed to influence actors at the earliest phases of the conflict spectrum. Our objective is to analyze how U.S. non-nuclear capabilities can be used to deter conventional aggression, and to examine the role of maritime power in preventing conventional conflicts.

We address two central questions in this study:

- What are the central concepts and principles of conventional deterrence in the modern international security environment? How does conventional deterrence work?
- What are the unique contributions of maritime power to conventional deterrence?

Background: conventional deterrence – then and now

Deterrence – the threat of force intended to convince adversaries not to undertake unwanted actions because the costs and risks outweigh the potential benefits – has always been one of the central strategic principles by which nations have attempted to prevent conflict.⁵ Although the concept of deterrence has been a component of military strategy for centuries, the development and rigorous analysis of deterrence as a discrete strategic concept did not occur until the advent of nuclear weapons.

Deterrence theory was developed against the backdrop of the Cold War nuclear arms race, and was therefore focused primarily on preventing nuclear conflict. Yet, while the vast majority of academic research and public debate on deterrence concerned preventing nuclear use – and, as a result, the concept of deterrence became synonymous with nuclear weapons – conventional deterrence took on an increasingly important role in military strategy during the Cold War.⁶ As the Soviet Union began to amass a large and survivable nuclear arsenal capable of global reach in the late 1950s and early 1960s, the credibility of the Eisenhower administration's deterrence doctrine of "Massive Retaliation," which threatened an all-out nuclear response to any Soviet conventional or nuclear aggression, was called into question. Once the Soviet Union possessed survivable nuclear retaliatory capabilities that could reach the U.S. homeland, many defense officials and analysts argued that the threat of Massive Retaliation lacked credibility against anything other than an all-out Soviet nuclear first strike.⁷

As a result, Western military strategy shifted from total reliance on nuclear weapons to deter both Soviet conventional and nuclear aggression to a strategy of "Flexible Response," which included conventional and nuclear elements. From the mid 1960s onward, NATO relied on conventional power, backed up by the

⁵ See, for example, George Quester, *Deterrence Before Hiroshima* (New Jersey: Transaction Books, 1986); and Richard Ned Lebow, "Thucydides and Deterrence," *Security Studies* (April 2007), pp. 163-188.

⁶ Samuel P. Huntington, "Conventional Deterrence and Conventional Retaliation in Europe," *International Security* (Winter 1983-1984), pp. 32-34; and John J. Mearsheimer, *Conventional Deterrence* (Ithaca: Cornell University Press, 1983), p. 13. See also Mearsheimer, "Why the Soviets Can't Win Quickly in Central Europe," *International Security* (Summer 1982), pp. 3-39.

⁷ One of the most sophisticated critiques of the Eisenhower administration's policy published at the time is William W. Kaufmann, "The Requirements of Deterrence," in William W. Kaufman, ed., *Military Policy and National Security* (Princeton: Princeton University Press, 1956), pp. 12-38. For an examination of nuclear doctrine during this period, see David A. Rosenberg, "The Origins of Overkill: Nuclear Weapons and American Strategy, 1945-1960," *International Security* (Spring 1983), pp. 3-71; and Richard K. Betts, "A Nuclear Golden Age? The Balance Before Parity," *International Security* (Winter 1986-1987), pp. 3-32.

threat of nuclear escalation, to deter a conventional assault on Europe by the numerically superior Warsaw Pact forces, and on nuclear weapons to deter nuclear attacks.⁸

Conventional deterrence earned an even bigger role in U.S. national security strategy in the aftermath of the Cold War. The demise of the Soviet Union, coupled with significant advancements in conventional precision-guided munitions (PGMs), led many defense analysts to conclude that "smart" conventional weapons could provide a powerful deterrent against a wide variety of threats. While some commentators argued that nuclear weapons were still necessary to deter nuclear attacks, and others contended that conventional weapons were "the only credible deterrent" even against nuclear threats, almost all agreed that technologically advanced conventional weapons could now substitute for many of the missions once relegated to nuclear weapons.⁹ Following the remarkable success of sophisticated conventional firepower in Operation DESERT STORM, William Perry argued, "This new conventional military capability adds a powerful dimension to the ability of the United States to deter war."¹⁰

In the current international security environment, conventional deterrence can be useful for deterring both non-nuclear and nuclear-armed adversaries. For regimes that do not possess nuclear (or chemical and/or biological) weapons, U.S. conventional capabilities are likely to be the most credible and potent deterrent. In general, it appears that many non-WMD-armed states are not intimidated by an opponent's nuclear capabilities. For example, nuclear weapons did not give the United States significant advantages before or during the Korean and Vietnam wars; nor did they deter Egypt from attacking Israel in the 1973 Yom Kippur War¹¹

⁸ On the transition to flexible response, see, for example, Lawrence Freedman, *The Evolution of Nuclear Strategy* (New York: St. Martin's Press, 1983); David N. Schwartz, *NATO's Nuclear Dilemmas* (Washington: Brookings Institution Press, 1983); Fred Kaplan, *The Wizards of Armageddon* (Stanford: Stanford University Press, 1983); and Helga Haftendorn, *NATO and the Nuclear Revolution: A Crisis of Credibility, 1966-1967* (Oxford: Oxford University Press, 1996).

⁹ Viewpoints on this debate include: William J. Perry, "Desert Storm and Deterrence," *Foreign Affairs* (Fall 1991), pp. 66-82; Paul H. Nitze, "Is It Time to Junk Our Nukes?" *Washington Post*, 16 January 1994, p. C1; Charles T. Allan, "Extended Conventional Deterrence: In from the Cold and Out of the Nuclear Fire?" *Washington Quarterly* (Summer 1994), pp. 203-233; Gary L. Guertner, "Deterrence and Conventional Military Forces," *Washington Quarterly* (Winter 1993), pp. 141-151; and Seth Cropsey, "The Only Credible Deterrent," *Foreign Affairs* (March-April 1994), pp. 14-20. For a more recent analysis of the necessary missions for nuclear weapons, see Ivan Oelrich, *Missions for Nuclear Weapons after the Cold War*, Federation of American Scientists, Occasional Paper No. 3, January 2005.

¹⁰ Perry, "Desert Storm and Deterrence," p. 66.

¹¹ Although Israel has never confirmed that it has nuclear weapons, it is widely believed to have had them since at least the early 1970s. On Israel's nuclear weapons program, see Avner Cohen, *Israel and the Bomb* (New York: Columbia University Press, 1999).

or Argentina from attacking the British-controlled Falkland Islands in 1982.¹² This is due in part to the perceived impact of the “nuclear taboo” – a moral and political aversion to using nuclear weapons that has emerged since the Second World War.¹³ This taboo reduces the credibility – and therefore the utility – of nuclear weapons, especially against regimes that do not have nuclear weapons or other forms of WMD.¹⁴

Although implicit or explicit nuclear threats may lack credibility against non-WMD regimes, many current and potential adversaries do believe that the United States will use conventional firepower, especially because we have significant conventional superiority and a demonstrated willingness to use it.¹⁵ Consequently, when dealing with non-WMD-related threats, conventional deterrence will be the most credible mechanism for deterring undesired actions.

Conventional deterrence also plays an important role in deterring non-nuclear aggression by nuclear-armed regimes. Regional nuclear proliferation might increase not only the chances of nuclear weapons use, but, equally important, the possibility of conventional aggression and mischief below the nuclear threshold. The potential for conventional conflict under the shadow of mutual nuclear deterrence was a perennial concern throughout the Cold War, and this scenario remains relevant today. A future nuclear-armed adversary may be emboldened to use conventional force against U.S. friends and allies, or to sponsor terrorism, in

¹² Some of the available evidence suggests that Egyptian and Argentinean decision-makers were not intimidated by Israel’s or Britain’s nuclear capabilities because they believed that the nuclear taboo effectively constrained the use of nuclear weapons against them. See T.V. Paul, “Nuclear Taboo and War Initiation in Regional Conflicts,” *Journal of Conflict Resolution* (December 1995), pp. 696-717.

¹³ On the “nuclear taboo,” see Nina Tannenwald, *The Nuclear Taboo: The United States and the Non-Use of Nuclear Weapons Since 1945* (Cambridge: Cambridge University Press, 2008). See also Robert Jervis, “What Do We Want to Deter and How Do We Deter It?” in L. Benjamin Ederington and Michael J. Mazarr, *Turning Point: The Gulf War and U.S. Military Strategy* (Boulder: Westview Press, 1994), p. 128.

¹⁴ In addition, the use of nuclear weapons against a non-nuclear state might violate U.S. Negative Security Assurances. Originally issued by the U.S. in 1978, Negative Security Assurances pledge that the U.S. will not use nuclear weapons against non-nuclear signatories to the Non-Proliferation Treaty, “except in the case of an attack on the United States, its territories or armed forces, or its allies, by such a State allied to a nuclear-weapon State or associated with a nuclear-weapon State in carrying out or sustaining the attack.”

¹⁵ U.S. conventional dominance can be an important motivator for nuclear proliferation. An adversary with inferior conventional capabilities may believe that developing or acquiring nuclear weapons is the best way to deter U.S. conventional firepower. From this perspective, nuclear proliferation is an asymmetric response to U.S. conventional superiority.

the belief that its nuclear capabilities provide it with an effective deterrent shield against U.S. retaliation and/or intervention in regional conflicts.¹⁶

In this context, conventional deterrence can be an important mechanism to foreclose options for opportunistic regional aggression. Given current U.S. force advantages, a state is more likely to attack its neighbors if the regime believes that it can accomplish its objectives before substantial U.S. forces can be deployed to the theater. In other words, a nuclear-armed regime may be more likely to undertake conventional aggression if it believes that a favorable local balance of power provides an opportunity for a *“fait accompli,”* whereby the regime strikes quickly and achieves victory before the United States can intervene. The hope is that, after achieving a relatively quick and inexpensive victory and making explicit or implicit nuclear threats, American (and perhaps coalition) forces would choose not to intervene.

By deploying robust conventional forces in and around the theater of potential conflict, the United States can credibly signal that its forces can respond to conventional aggression at the outset, and therefore the regime cannot hope to accomplish a *fait accompli* buttressed by nuclear threats. Moreover, if the United States can convince an opponent that U.S. forces will be engaged at the outset of hostilities – and therefore sustain the human and financial costs of war from the beginning – it can help convince opponents that we would be highly resolved to fight even in the face of nuclear threats because American blood and treasure would have already been expended. Similar to the Cold War, the deployment of conventional power in the region, combined with significant nuclear capabilities (and, today, Ballistic Missile Defense), can provide a powerful deterrent to aggression below the nuclear threshold.

Bounding the Study

Deterrence is a complex and dynamic concept involving political, psychological, cultural, and military elements. Given the multifaceted nature of deterrence, our initial task was to develop and define the parameters of our research. After consultation with the project sponsor, we bound the study in the following ways:

¹⁶ This concern is the core of the “stability-instability paradox,” a term coined by Glenn Snyder. The issue is whether stable mutual deterrence at the nuclear level encourages aggression at lower levels. If countries are mutually deterred from using nuclear weapons by the fear of retaliation, then they might believe that they can fight conventional wars because neither side would have anything to gain from nuclear escalation. See Glenn H. Snyder, “The Balance of Power and the Balance of Terror,” in Paul Seabury, ed., *The Balance of Power* (Scranton: Chandler Publishing Co., 1965), pp. 185-201

First, we have limited our analysis to conventional deterrence. Although nuclear deterrence remains an essential element of U.S. national security strategy, many future contingencies are likely to stem from conventional threats. As discussed above, U.S. conventional power is likely to be the most credible deterrent when dealing with these security challenges.

Moreover, although the body of academic literature on deterrence is vast, the majority of it is focused solely on the nuclear component. Given the centrality of nuclear deterrence throughout the Cold War – the period in which deterrence theory was developed – there has been significantly less examination of deterrence at the conventional level. Consequently, one objective of this study is to provide fresh analysis on the theory and practice of conventional deterrence.

Second, our analysis is focused on identifying the range of maritime capabilities and operations that can contribute to deterrence, rather than which specific combination is most likely to have the largest deterrent effect in any particular context.¹⁷ The Navy has a wide range of kinetic and non-kinetic tools that can be used to protect, acquire, and otherwise further U.S. interests, and in order to develop and implement effective deterrence strategies, it must first identify which assets, capabilities, and operations are applicable and useful for the deterrence mission. Effective deterrence requires all elements of national power across the D.I.M.E. (diplomatic, information, military, economics) spectrum, and our objective is to determine how and where maritime power provides important and unique contributions to deterrence within this broader framework.

Third, based on the sponsor's guidance, this study is focused on U.S. deterrence strategies against sovereign states. While there has been a significant amount of attention in recent years to deterring terrorists and other non-state actors,¹⁸ the potential for inter-state conflict still remains. In the coming decades, shifts in the balance of global military, economic, and political power can create new possibilities for international competition, crises, and conflict, especially over global en-

¹⁷ Other ongoing research at CNA is focused on examining the short, intermediate, and long-term strategic impact of Navy operations, especially Humanitarian Assistance/Disaster Relief (HA/DR) missions.

¹⁸ See, for example, Daniel Whiteneck, "Deterring Terrorists: Thoughts on a Framework," *Washington Quarterly* (Summer 2005), pp. 187-199; Robert F. Trager and Dessislava P. Zagorcheva, "Deterring Terrorism: It Can be Done," *International Security* (Winter 2005-2006), pp. 87-123; Caitlin Talmadge, "Deterring a Nuclear 9/11," *Washington Quarterly* (Summer 2007), pp. 21-34; Michael A. Levi, *Deterring State Sponsorship of Nuclear Terrorism*, Council on Foreign Relations, Council Special Report No. 39, 2008; and James H. Lebovic, *Deterring International Terrorism and Rogue States: U.S. National Security Policy after 9/11* (London: Routledge, 2007).

ergy resources.¹⁹ Consequently, our objective is to analyze how U.S. conventional power can help deter state-on-state crises and conflicts.

Fourth, we pay particular attention to extended deterrence – the threat of force used to deter attacks on friends and allies. We do not deny or downplay the critical importance of deterring direct attacks on the U.S. homeland, especially given global trends in the proliferation and modernization of ballistic missiles. In fact, most of our analysis is applicable to both extended deterrence and “central” deterrence (the threat of force to deter attacks on one’s homeland). But, in general, extended deterrence is more challenging than central deterrence because it can be difficult to convince others that the United States would actually be willing to run potentially significant risks to protect another country.

As Thomas Schelling observed,

...the difference between the national homeland and everything ‘abroad’ is the difference between threats that are inherently credible, even if unspoken, and the threats that have to be made credible. To project the shadow of one’s military force over other countries and territories is an act of diplomacy. To *fight* abroad is a military act, but to *persuade* enemies or allies that one would fight abroad, under circumstances of great cost and risk, requires more than a military capability. It requires projecting intentions. It requires *having* those intentions, even deliberately acquiring them, and communicating them persuasively to make other countries behave.²⁰

Developing credible extended deterrence strategies is especially important because it is likely that many future security challenges will involve deterring attacks against friends and allies. The two scenarios that currently dominate planning and procurement for Major Combat Operations (MCOs) involve issues of extended deterrence – the protection and defense of South Korea and Taiwan. Similarly, many concerns about direct Russian or Iranian aggression are focused on threats to states in their respective regions, such as Ukraine and Georgia in the case of Russia, and Israel, Turkey, Egypt, and Saudi Arabia for Iran.

Finally, we examine conventional deterrence in peacetime, crises, and in the opening stages of conflict. According to the new Maritime Strategy, in an increasingly globalized and interconnected world, international crises and conflict can have devastating ripple effects on the peaceful and productive functioning of the

¹⁹ See, for example, Michael T. Klare, *Rising Powers, Shrinking Planet: The New Geopolitics of Energy* (New York: Metropolitan Books, 2008).

²⁰ Thomas C. Schelling, *Arms and Influence* (New Haven: Yale University Press, 1966), p. 36. Italics in original.

global system.²¹ In order to prevent severe disruptions to the global system, deterrence efforts must begin during peacetime (Phase 0), contribute to the peaceful resolution of crises (Phase 1), and, if conflict erupts, provide decision-makers with useful tools for quick termination of the conflict on terms favorable to the United States (Phase 2). Although most of our analysis is centered on conventional deterrence before conflict begins, we will briefly examine the role of deterrence and other forms of military coercion at the outset of conflict to demonstrate how threats of force – including the limited use of force – can help deter escalation and terminate conflicts.

Methodology

Deterrence is a simple concept that, in practice, often involves complex and opaque mental calculations. Given the inherent conceptual and theoretical nature of deterrence – and, as will be discussed below, the methodological difficulties of “proving” deterrence – our research methodology incorporates several approaches.

First, we rely heavily on the voluminous policy and academic literature on deterrence. This literature provides a solid conceptual and historical foundation for our analysis. However, because most of this work was developed during the Cold War (and is therefore focused on nuclear deterrence within the U.S.-Soviet context), an important part of our analysis is to identify and extrapolate arguments, insights, and concepts that are applicable to conventional deterrence in the modern era.²²

In addition to the academic literature, our analysis builds on a substantial body of past CNA research on deterrence and naval forward presence.²³ This work pro-

²¹ *A Cooperative Strategy for 21st Century Seapower*, pp. 2-5.

²² See, for example, Robert P. Haffa, Jr., “The Future of Conventional Deterrence: Strategies and Forces to Underwrite a New World Order,” in Gary L. Guertner, Robert Haffa Jr., and George Quester, eds., *Conventional Forces and the Future of Deterrence* (Carlisle: Strategic Studies Institute – U.S. Army War College, 1992).

²³ Relevant CNA research, which can be provided upon request, includes: Linton F. Brooks, *Peacetime Influence Through Forward Naval Presence*, CNA Occasional Paper, October 1993; Daniel Y. Chiu, *The Link Between Military Deterrence and Political Influence*, CNA Working Paper 95-1435, August 1995; John P. Keefe, Jr., *Understanding Overseas Presence in Terms of Functions and Missions*, CNA Research Memorandum 95-91, May 1995; Daniel Y. Chiu and Jonathon T. Dworken, *The Political Effects of U.S. Military Presence in the Asia-Pacific Region*, CNA Research Memorandum 91-75, April 1991; Adam B. Siegal, *To Deter, Compel, and Reassure in International Crises: The Role of U.S. Naval Forces*, CNA Research Memorandum 94-193, February 1995; Henry H. Gaffney, Jr., *The U.S. Naval Contribution to Deterrence*, CNA Research Memorandum 95-193, August 1995; Gaffney, *U.S. Deterrence and Influence in the New*

vides an extensive conceptual and empirical baseline from which to conduct our analysis of maritime contributions to effective conventional deterrence.

Finally, throughout the research process we consulted with subject-matter experts (SMEs). The use of SMEs provides us with a forum to gain new insights and test our ideas. We consulted with SMEs from CNA, IDA, OPNAV, OSD, USSTRATCOM, academic institutions, and various think tanks.

Challenges to the Study of Deterrence

The combination of academic literature, past CNA research, and consultation with SMEs provides us with a strong research methodology to examine the theory and practice of conventional deterrence. Before moving forward, it is useful to highlight two important methodological challenges that complicate the study of deterrence. These issues, which have impacted deterrence analyses since the foundation of modern deterrence theory in the 1950s, will give policymakers and military planners an important perspective on the study, design, measurement, and implementation of deterrence.

“Proving” Deterrence

Since deterrence is principally concerned with convincing an adversary *not* to do something, deterrence “success” represents the maintenance of the status quo. When deterrence works, the adversary does not act because it has decided that the potential costs and risks of a particular action outweigh the possible benefits. Successful deterrence, therefore, leads to inaction.

This presents a fundamental challenge to the analysis and assessment of deterrence strategies and operations. Proving that deterrence worked – and, equally important, analyzing why it worked – requires determining why something *did not* happen. This kind of analysis is especially challenging because it requires first demonstrating that a state’s leaders wanted to take a particular action, and then determining that they ultimately decided against it because the costs and risks were deemed too high. Leaders rarely, if ever, explain why they did not do something, and they are especially unlikely to admit that they refrained from acting due

Era, CNA Information Memorandum 9505790000, August 1998; Bradford Dismukes, *National Security Strategy and Forward Presence: Implications for Acquisition and Use of Force*, CNA Research Memorandum 93-192, March 1994; Daniel J. Whiteneck, *Naval Forward Presence and Regional Stability*, CNA Research Memorandum D0000639.A2, September 2001; and Whiteneck and David Strauss, *Assessing Sea Shaping Capabilities*, CNA Annotated Briefing D0014321.A2, July 2006.

to fear of the potential consequences. Reflecting on the challenges of deterrence in the Cold War, Henry Kissinger wrote,

Since deterrence can only be tested negatively, by events that do not take place, and since it is never possible to demonstrate why something has not occurred, it became especially difficult to assess whether the existing policy was the best possible policy or just a barely effective one. Perhaps deterrence was even unnecessary because it was impossible to prove whether the adversary ever wanted to attack in the first place.²⁴

Defense analysts and academics have long recognized the “provability problem,” and there has been little progress in finding a solution or a way around it. That being said, as the Cold War recedes further into history and the historical records in the United States, Russia, and other countries are declassified, researchers can examine some of the most sensitive discussions and debates within the highest levels of government.²⁵ While it is unlikely that this research will uncover a “smoking gun” that definitively proves deterrence, it can provide unique insight into key decision-makers’ calculations and deliberations about the costs, benefits, and risks of aggression. Moreover, since our analysis is focused on conventional deterrence, we can extend our research into the pre-nuclear age to glean additional insights.²⁶

The “Rational Actor” and Deterrence

Since deterrence depends on manipulating an opponent’s cost/benefit calculus, successful deterrence requires that the opponent is able to make rational calculations. A “rational actor” is someone who can carefully and dispassionately analyze the costs and benefits of a set of options and choose the course of action

²⁴ Henry Kissinger, *Diplomacy* (New York: Simon and Schuster, 1994), p. 608.

²⁵ Recent examples include: Scott D. Sagan and Jeremi Suri, “The Madman Nuclear Alert: Secrecy, Signaling, and Safety in October 1969,” *International Security* (Spring 2003), pp. 150-183; Lyle J. Goldstein, *Preventive Attack and Weapons of Mass Destruction: A Comparative Historical Analysis* (Stanford: Stanford University Press, 2005); Benjamin Fischer, “The Soviet-American War Scare of the 1980s,” *International Journal of Intelligence and Counterintelligence* (Fall 2006), pp. 480-518; Pavel Podvig, “The Window of Vulnerability that Wasn’t: Soviet Military Buildup in the 1970s – A Research Note,” *International Security* (Summer 2008), pp. 118-138; and Vladislav Zubok and Constantine Pleshakov, *Inside the Kremlin’s Cold War: From Stalin to Khrushchev* (Cambridge: Harvard University Press, 1996).

²⁶ See, for example, Vesna Danilovic, *When the Stakes are High: Deterrence and Conflict Among Major Powers* (Ann Arbor: University of Michigan Press, 2004); Paul Huth and Bruce Russett, “What Makes Deterrence Work? Cases from 1900 to 1980,” *World Politics* (July 1984), pp. 496-526; Paul K. Huth, *Extended Deterrence and the Prevention of War* (New Haven: Yale University Press, 1988); Measheimer, *Conventional Deterrence*; and Jonathon Shimshoni, *Israel and Conventional Deterrence: Border Warfare from 1953 to 1970* (Ithaca: Cornell University Press, 1988).

that is likely to provide the most utility for the least cost. If the enemy is irrational or otherwise mentally deficient, deterrence will be unsuccessful – or at least especially difficult – because he or she may not be able to make the kinds of rational mental calculations upon which deterrence depends.²⁷

The rationality assumption in deterrence theory has been criticized as being unrealistic and incompatible with the character of many potential adversaries in the post-Cold War world.²⁸ According to this view, today there are a new breed of “rogue” states, such as Iran and North Korea, that are led by brutal and repressive leaders who do not care about the welfare of their populations and are willing to take huge risks to achieve their objectives. These regimes, it has been argued, may be undeterrable.²⁹

While it is certainly not out of the realm of possibility that these kinds of regimes might exist, truly irrational or “crazy” regimes are historically extremely rare.³⁰ For example, despite these kinds of assertions about Kim Jung-Il and ex-Iraqi leader Saddam Hussein, there is some historical evidence – although not definitive or conclusive – that both leaders have displayed rational behavior, and have been deterred from aggression.³¹

²⁷ For analysis of the rationality assumption in deterrence theory, see Stephen Maxwell, *Rationality in Deterrence*, Adelphi Papers, No. 50 (London: International Institute for Strategic Studies, 1968); Frank C. Zagare, “Rationality and Deterrence,” *World Politics* (January 1990), pp. 238-260; and Patrick M. Morgan, *Deterrence Now* (Cambridge: Cambridge University Press, 2003), ch. 2.

²⁸ See, for example, William C. Martel, “Deterrence and Alternative Images of Nuclear Possession,” in T.V. Paul, Richard J. Harknett, and James J. Wirtz, eds., *The Absolute Weapon Revisited: Nuclear Arms and the Emerging International Order* (Ann Arbor: University of Michigan Press, 2000), pp. 213-234.

²⁹ This view is reflected in the 2002 U.S. National Security Strategy, pp. 13-16. For an analysis of the rise of the concept of “rogue states,” see Robert S. Litwak, *Rogue States and Foreign Policy: Containment After the Cold War* (Washington: Woodrow Wilson Center Press, 2000).

³⁰ See, for example, *Deterrence Operations Joint Operating Concept*, U.S. Strategic Command, Department of Defense, version 2.0, December 2006 (hereafter cited as DO JOC), p. 11; Kenneth Watman and Dean Wilkening, *U.S. Regional Deterrence Strategies* (Santa Monica: Rand Corp., 1995), p. ix, 25; and Sir Michael Quinlan, “Deterrence and Deterrability,” in Ian R. Kenyon and John Simpson, eds., *Deterrence and the New Global Security Environment* (London: Routledge, 2006), pp. 3-9.

³¹ Lebovic, *Deterring International Terrorism and Rogue States*, p. 41; John J. Mearsheimer and Stephen M. Walt, “Can Saddam Be Contained? History Says Yes” (Cambridge: Belfer Center for Science and International Affairs, Harvard University, November 2002); and David Szabo, “Disarming Rouges: Deterring First-Use of Weapons of Mass Destruction,” *Parameters* (Winter 2007-2008), pp. 71-84.

Some analyses of Iraqi decision-making during the first Gulf War suggest that the United States successfully deterred Saddam Hussein from ordering the use of chemical and/or biological weapons.³² In this case, U.S. threats to exact a “terrible price”³³ in response to Iraq’s use of unconventional weapons appear to have had an important deterrent effect on Saddam. Similarly, U.S. presence on the Korean peninsula has apparently deterred North Korean aggression against South Korea for over five decades (although, as noted above, we cannot definitively prove that North Korea has wanted to attack the South at any time since the Korean War).

Yet, even if most (if not all) regimes *can* be deterred, it does not mean that they *will* be deterred in all circumstances. It is important to note that a state that is extremely difficult to deter is not necessarily irrational. In certain situations, the U.S. may not be willing or able to threaten to do anything that is more dangerous or unacceptable to the regime than the costs of inaction.

Some future adversaries may be very difficult to deter because they are highly motivated to achieve critical objectives. For example, a regime that believes its hold on domestic power is in jeopardy may be willing to take very large risks to prevent the loss of political control.³⁴ One influential study on the origins of international crises found that regimes facing domestic political threats to the survival of the regime have deliberately engaged in international crises or conflicts in an effort to divert national attention away from internal problems.³⁵ A regime that is desperate to hold on to political power may be undeterrable – or extremely difficult to deter – because it believes that it has “nothing left to lose.”

³² See William M. Arkin, “Calculated Ambiguity: Nuclear Weapons and the Gulf War,” *Washington Quarterly* (Autumn 1996), pp. 3-18; Smith, *Deterring America*, ch. 3; Robert Jervis, *American Foreign Policy in a New Era* (London: Routledge, 2005), p. 66; and Daniel Byman, Kenneth Pollack, and Mathew Waxman, “Coercing Saddam Hussein: Lessons from the Past,” *Survival* (Fall 1998), pp. 127-151. For a more skeptical view, see Scott D. Sagan, “The Commitment Trap: Why the United States Should Not Use Nuclear Threats to Deter Biological and Chemical Weapons Attacks,” *International Security* (Spring 2000), pp. 85-115.

³³ Quoted in Sagan, “The Commitment Trap,” p. 93.

³⁴ Watman and Wilkening, *U.S. Regional Deterrence Strategies*, pp. ix-x, 22-26.

³⁵ Richard Ned Lebow, *Between Peace and War: The Nature of International Crises* (Baltimore: Johns Hopkins University Press, 1984), pp. 67-70.

In addition, a state may be very difficult to deter if the issue at stake involves gaining control or preventing the loss of a piece of important territory. Controlling sacred territory – land that has particular historical, cultural, and/or religious meaning, and is therefore intimately connected to the state’s national identity and security interests – has been an important causal factor in inter-state and civil wars (as well as a motivator for terrorism).³⁶

³⁶ See, for example, Paul Huth, *Standing Your Ground: Territorial Disputes and International Conflict* (Ann Arbor: University of Michigan Press, 1998); Monica Duffy-Toft, *The Geography of Ethnic Violence: Identity, Interests, and the Indivisibility of Territory* (Princeton: Princeton University Press, 2003); Paul F. Diehl, ed., *A Road Map to War: Territorial Dimensions of International Conflict* (Nashville: Vanderbilt University Press, 1999); Guntram H. Herb and David H. Kaplan, *Nested Identities: Nationalism, Territory, and Scale* (Lanham: Rowman and Littlefield, 1999); John Vasquez, *The War Puzzle* (Cambridge: Cambridge University Press, 1993); Ron E. Hassner, “‘To Have and to Hold’: Conflicts Over Sacred Space and The Problem of Indivisibility,” *Security Studies* (Summer 2003), pp. 1-33; and Robert A. Pape, *Dying to Win: The Strategic Logic of Suicide Terrorism* (New York: Random House, 2005).

Deterrence: Definitions and Concepts

Deterrence and Compellence

Broadly defined, deterrence means convincing an adversary not to initiate a specific action because the costs will be unacceptably high and/or the probability of success will be low. Deterrence is principally focused on manipulating an adversary's cost/benefit calculations in order to persuade the opponent to decide against undertaking a particular action or behavior.

At its core, deterrence is based on the *threat* of force. It is grounded in the threat of what we *can* do to an adversary – the *potential* of military force³⁷ – if it acts against U.S. interests. Deterrence is inherently a “conservative” or “status quo” policy, as it places the onus of aggression squarely on one's adversaries. A central element of deterrence is that the decision about whether *we* use force is deliberately put in the opponent's hands: if they undertake aggression, we use force in response; if they do not, we refrain.³⁸

In some instances deterrent threats are issued directly to an adversary in the form of “if you take action ‘X’ you will pay an unacceptable price.” In many cases, however, deterrent threats are issued indirectly through the expressed commitment to defend an ally. By making a commitment to defend another nation, the U.S. is essentially issuing a deterrent threat to any regime that might consider an attack on the ally. Such statements can both assure allies that the U.S. will honor its extended deterrence commitments and send a deterrence message to potential aggressors.

³⁷ While the threat of military force is the most common mechanism of deterrence, it is important to note that there are other non-kinetic methods of deterrence, including the threat of sanctions and diplomatic isolation. In addition, deterrence can also be achieved by inducement – the offer to give the state things that it wants or needs. See, for example, David Baldwin, “The Power of Positive Sanctions,” *World Politics* (October 1971), pp. 19-38.

³⁸ Schelling, *Arms and Influence*, pp. 2-3, 73-74. According to Schelling, “Actually, any coercive threat requires corresponding assurances; the object of a threat is to give somebody a choice. To say, ‘One more step and I shoot,’ can be a deterrent threat only if accompanied by the implicit assurance, ‘And if you stop I won’t.’”

The fact that deterrence seeks to impact an adversary's choices by manipulating cost/benefit calculations underscores an important point: deterrence is principally a psychological process.³⁹ Deterrence calculations occur in the mind of the opponent, and therefore it is highly dependent on the opponent's perceptions – and misperceptions – of the particular strategic circumstances and overall context.⁴⁰

Recognition of the crucial cognitive characteristics of deterrence is an important component of DoD guidance. The official DoD definition of deterrence refers to it as a “state of mind,”⁴¹ and the *Deterrence Operations Joint Operating Concept* (DO JOC) contends that deterrence operations aim to achieve “decisive influence over [the adversary's] decision-making.”⁴²

In addition to deterrence, threats of force can be used for compellence. Whereas deterrence seeks to convince an adversary to refrain from action, compellence involves the threat (or actual use) of force to persuade an adversary to change its behavior.⁴³ With compellence, the objective is to convince the adversary to stop doing something we do not like, or to do something that it is not currently doing.⁴⁴ In contrast to deterrence, which threatens force *if* the adversary acts, compellence often requires that force be used *until* the opponent acts. Thus, in many instances, compellence involves the actual use of force, with the implicit or explicit threat of more to come, until the adversary changes its behavior.⁴⁵

³⁹ See, for example, Robert Jervis, Richard Ned Ledow, and Janice Gross Stein, *Psychology and Deterrence* (Baltimore: Johns Hopkins University Press, 1985).

⁴⁰ Robert Jervis, “Deterrence and Perception,” *International Security* (Winter 1982/1983), pp. 3-30. See also Jervis, *Perception and Misperception in International Politics* (Princeton: Princeton University Press, 1976).

⁴¹ The DoD definition of deterrence is available at <http://www.dtic.mil/doctrine/jel/doddict/data/d/01669.html>.

⁴² DO JOC, p. 3.

⁴³ The term “compellence” is attributed to Thomas Schelling. The classic text on the distinction between deterrence and compellence is Schelling, *Arms and Influence*, pp. 69-91. See also Gary Schaub, Jr., “Compellence: Resuscitating the Concept,” in Lawrence Freedman, ed., *Strategic Coercion* (Oxford: Oxford University Press, 1998), pp. 37-60.

⁴⁴ Morgan, *Deterrence Now*, pp. 2-3.

⁴⁵ Schelling, *Arms and Influence*, p. 72.

Assessing Deterrence and Compellence

In general, successful compellence is more difficult than deterrence precisely because compellence requires a shift in behavior. A decision to take action, such as initiating conflict, entails significant political, military, and economic costs, and an opponent that has embarked on a particular action and has already incurred a number of costs may be reluctant to stop or retreat.

In addition, leaders may be hesitant to change their behavior because doing so may result in a damaged reputation, perhaps including the loss of domestic and international power and prestige. Since compellence often results in a noticeable change in behavior, the regime may fear that submission sets a dangerous precedent that it can be successfully coerced. These considerations are less of a problem with deterrence, because even if a state was successfully deterred from action, it can more easily put a positive spin on the situation by claiming that it never actually intended to attack. Since successful deterrence results in inaction, there is no definite way to confirm or refute whether the regime ever intended to act in the first place.⁴⁶

In practice, deterrence and compellence operate along a continuum and can complement each other. Deterrent threats are intended to prevent adversaries from doing something we do not want them to do, but if deterrence fails (or is not attempted), we can turn to compellence to force them to cease their offensive and retreat. Thus, in many cases, deterrence comes before compellence, and we try to deter in the hope that we will not have to later compel. During conflict, however, deterrent and compellent threats tend to merge and may be difficult to distinguish, since the same actions used to compel an adversary to terminate hostilities or retreat from seized territory can also help deter escalation to higher levels of violence.⁴⁷

⁴⁶ Robert J. Art, "To What Ends Military Power?" *International Security* (Spring 1980), p. 10.

⁴⁷ Schelling, *Arms and Influence*, pp. 77-82; and Daniel Byman and Mathew Waxman, *The Dynamics of Coercion: America Foreign Policy and the Limits of Military Might* (Cambridge: Cambridge University Press, 2002), pp. 7-8.

Deterrence by Denial and Deterrence by Punishment

Deterrence strategies are generally designed around two principal mechanisms: deterrence by denial and deterrence by punishment.⁴⁸ Deterrence by denial is a threat intended to convince the adversary that it should not undertake aggression because it will be unable to achieve its political and military objectives. This form of deterrence is grounded in the ability to deny the adversary the benefits that it hopes to achieve from fighting. The objective is to get the enemy to believe that launching an offensive is pointless because our superior capabilities and war-fighting strategies will prevent their success.

Deterrence by punishment refers to the threat of imposing unacceptable costs in retaliation for unwanted behaviors.⁴⁹ Whereas denial strategies are intended to deter by convincing the opponent that we can prevent it from attaining its desired objectives through aggression, deterrence by punishment is focused on imposing penalties that would make the benefits prohibitively costly. The targets to be destroyed in the execution of punishment strategies are often in the adversary's homeland and have been identified because they are highly valued by the leadership. As a result, imposing punishment may be of little military utility in terms of overpowering an opponent's conventional forces in combat.

Traditionally, deterrence by punishments involves the targeting of enemy forces, leadership, weapons programs, or any other asset highly valued by decision makers. Increasingly, in a domestic and international environment characterized by heightened sensitivities to collateral damage, this means finding creative mechanisms for punishing decision-makers and their enabling systems while bypassing non-combatants and civilian infrastructure.

⁴⁸ Glenn Snyder, *Deterrence and Defense: Toward a Theory of National Security* (Princeton: Princeton University Press, 1961), pp. 14-16.

⁴⁹ For deterrence by punishment to be effective, the cost imposed must be truly "unacceptable" to the adversary. Given that deterrence rests on manipulating the adversary's cost/benefit calculus, the threat to be imposed must significantly tip the scale in favor of costs, and therefore against taking the unwanted action. If the threat is not "unacceptable," the adversary could reasonably calculate that the benefits are worth the potential costs, and deterrence may fail.

Assessing Deterrence by Denial and Punishment

Denial and punishment strategies seek to influence different aspects of an opponent's decision calculus: denial is intended to impact a regime's assessment of its probability of success; punishment is meant to influence judgments about the potential costs.⁵⁰ Consequently, choices between denial and punishment strategies involve some important tradeoffs in overall force posture and planning, as the kinds of forces needed for a strategy based primarily on deterrence by punishment will differ in many ways from a force designed for denial.⁵¹

Since deterrence by denial is focused on the threat to overcome an opponent's strength on the battlefield (and thereby deny success), a force posture for denial is likely to emphasize ground forces and tactical air power. Successful deterrence by denial depends on the ability to rapidly deploy and sustain combat forces around the world, and is therefore dependent on prompt access to the region, strategic lift, theater basing and over-flight permission, and re-supply.

Whereas denial strategies depend on forces that can engage and defeat the opponent, deterrence by punishment requires forces capable of destroying targets of great value to the adversary. As a result, a force posture designed for deterrence by punishment will heavily emphasize air power and precision strike capabilities (such as cruise missiles), and will require targeting packages that are flexible and tailored to each specific context.

Deterrence by punishment is especially dependent on strong intelligence to determine what the adversary values, as well as surveillance and reconnaissance to ascertain where appropriate targets are located. Equally important, sustained and comprehensive ISR (intelligence, surveillance, and reconnaissance) is necessary to minimize collateral damage. This is likely to be especially vital to planning for future deterrence challenges, as future adversaries may attempt to limit our ability to threaten – and, if necessary, execute – punishment by locating high-value targets near civilians or by putting potential targets in underground facilities that cannot be destroyed without the use of very powerful munitions.⁵²

⁵⁰ Snyder, *Deterrence and Defense*, p. 15. Snyder continues, "Of course, this distinction [between denial and punishment] is not sharp or absolute: a 'denial' response...can mean high direct costs, plus the risk that the war may get out of hand...A 'punishment' response, if powerful enough, may foreclose territorial gains, and limited reprisals may be able to force a settlement short of complete conquest of the territorial objective."

⁵¹ Jervis, "What Do We Want to Deter and How Do We Deter It?" p. 127.

⁵² See, for example, Byman and Waxman, *The Dynamics of Coercion*, pp. 146-147.

Deterrence Credibility

A core ingredient of successful deterrence is that our threats are credible to the adversary. Credibility is the quality of being believed.⁵³ In order to deter, an opponent must believe that we *can* and *will* use force to deny success or impose punishment if it chooses to use force against U.S. interests. Adversaries that doubt the credibility of U.S. deterrent threats may be more willing to attack, especially if they are highly motivated to achieve their objectives.

Deterrence credibility is a function of military capabilities and political resolve. For deterrence to be credible, an adversary must believe that we have the necessary military capabilities and the political will to carry out our threats.⁵⁴ Thus, deterrence credibility, like the entire concept of deterrence, is achieved by impacting the opponent's mental perceptions and calculations.

The capabilities component of deterrence credibility is relatively straightforward. Effective deterrence requires that the adversary believe that the deterrer has the proper forces to act on its threats if necessary. For the United States, this means convincing an opponent that, at a minimum, we can access the region and sustain combat forces in theater (for denial), as well as identify and destroy high-value targets (for punishment).

In addition, an important element of the capabilities side of credibility is convincing potential adversaries that U.S. forces will not be hindered by defensive maneuvers and anti-access capabilities, such as mining or air defenses, and that the successful execution of our threats will not be held up by regional states' refusals to allow overflight or base access. Thus, credible deterrence depends not only on possessing sufficient offensive kinetic power, but also on persuading others that our successful use of force will not be adversely affected by defensive efforts or regional political dynamics.

While possessing sufficient military capabilities is a basic requirement of deterrence, the fact that the United States *can* use force does not necessarily mean that we *will* use force. Resolve – or political willpower – refers to our willingness and commitment to use force if an adversary does something that we do not want it to do.

According to Herman Kahn, an influential theorist of deterrence and nuclear strategy, "Credibility depends on being willing to accept the other side's retaliatory

⁵³ Morgan, *Deterrence Now*, p. 15.

⁵⁴ Kaufmann, "The Requirements of Deterrence," pp. 163-168.

blow. It depends on the harm *he* can do, not the harm *we* can do.”⁵⁵ Kahn’s statement reflects the fact that one of the keys to convincing potential adversaries of our resolve involves persuading them that we will use force if our demands are not met, *even if using force could be costly for us*.

If deterrence fails and the United States chooses to implement its threats – either in the form of denial, punishment, or both – there is a possibility that, as a consequence of executing our threat, the adversary will inflict costs back on us. For example, efforts to deny success will put U.S. forces in harm’s way, thereby increasing the chances that we suffer casualties in the execution of our threat. Similarly, if the United States chooses to impose punishment on a regime for taking unwanted actions, there is a chance that, after carrying out our threat, the adversary might still be able to counter-retaliate. There are also economic and political costs, such as the financial burden of funding conflict and the possibility of domestic and international political repercussions. Consequently, for deterrence to be credible an opponent must believe that the particular issue at stake is important enough to us that we are willing to accept some costs to defend our interests.

In general, the willingness to accept costs is dependent on the value that is placed on the issue at stake. The degree of our resolve is largely a function of our interests; the more closely the issue at stake is tied to core U.S. interests, the greater our resolve.⁵⁶ In some circumstances, an adversary is likely to already believe that our resolve is high. For example, as discussed in the Background section of this study, U.S. deterrent threats against attacks on CONUS are inherently credible because there is little doubt as to whether the U.S. would respond to a conventional attack on the homeland, even if doing so ran the risk of counter-retaliation.⁵⁷ In other

⁵⁵ Herman Kahn, *On Thernuclear War* (Princeton: Princeton University Press, 1960), p. 32 (italics in original). Similarly, Glenn Snyder writes, “political power, like deterrence, is a two-way street: A’s power over B depends on B’s power over A. A has little or no power over B, even if A possesses a ‘base’ for inflicting deprivations on B, if B can inflict punishment of similar weight against A and can be expected to do so in retaliation with a high degree of credibility.” Quoted from Snyder, “Deterrence and Power,” pp. 164-165. See also Morgan, *Deterrence Now*, pp. 18-19.

⁵⁶ Watman and Wilkening, *U.S. Regional Deterrence Strategies*, pp. 57-58; and Watman and Wilkening, *Nuclear Deterrence in a Regional Context* (Santa Monica: Rand Corp., 1995), pp. 14-15. Watman and Wilkening also include reputation as component of an adversary’s perception of resolve, but indicate that the impact of reputation is not very strong. Moreover, recent research argues that reputation has little impact on perceptions of credibility. See Daryl G. Press, *Calculating Credibility: How Leaders Assess Military Threats* (Ithaca: Cornell University Press, 2005).

⁵⁷ In the Cold War, however, some analysts did question the credibility of U.S. threats of nuclear retaliation. They wondered whether the U.S. would be willing to launch a nuclear retaliation for a limited nuclear strike on the U.S. homeland or on allies, or in response to a conventional war in Europe, since the Soviets would still retain a massive nuclear capability that could be used in counter-retaliations. This concern was

cases, such as efforts to deter attacks against allies (extended deterrence), U.S. interests and resolve may be less clear to the adversary, and consequently the potential success of deterrence will require convincing an opponent that the United States is highly resolved to defend its allies.

Assessing Deterrence Credibility

One of the primary challenges to effective deterrence in the current era is the potential for an imbalance, or asymmetry, of capabilities and political willpower between the United States and potential aggressors. Whereas the United States may enjoy a comparative advantage in conventional military power in future deterrence situations, the opponent may have greater interests in the issue at stake, and therefore a higher degree of resolve. In such circumstances the opponent may be willing to take substantial risks to achieve its objectives despite our advantages in military power. According to the DO JOC,

U.S. military supremacy alone is not a guarantee of successful deterrence. Despite the fact that the United States is almost certain to be militarily dominant over its adversaries in future deterrence scenarios, those adversaries may believe that they have an asymmetrically higher stake in the outcome of the crisis or conflict. The differential between stakes in the outcome of a crisis or conflict can undermine deterrence effectiveness.⁵⁸

An adversary is especially likely to be willing to run great risks to achieve its goals if the leadership believes that it must take action to prevent the loss of something of great value (e.g., a piece of territory, access to resources, domestic political power, or relative power position vis-à-vis its rivals). According to Prospect Theory, an influential model in economics whose creators (both psychologists) won the Nobel Prize, leaders tend to be more willing to accept risks to avert a loss, and less willing to run high risks to achieve gains.⁵⁹ Based in part on arguments from Prospect Theory, it is now well known that many decision-makers consider not only the po-

one of the drivers for increased flexibility and Limited Nuclear Options in the SIOP. Some analysts even worried that Soviet leaders would be emboldened to initiate a first-strike on CONUS-based ICBMs in the belief that their residual forces would deter U.S. retaliation. See, for example, Paul H. Nitze, "Deterring Our Deterrent," *Foreign Policy* (Winter 1976-1977), pp. 195-210; and Nitze, "Assuring Strategic Stability in an Era of Détente," *Foreign Affairs* (January 1976), pp. 207-232.

⁵⁸ DO JOC, p. 17.

⁵⁹ Prospect theory was developed by Daniel Kahneman and Amos Tversky. See Kahneman and Tversky, "Prospect Theory: An Analysis of Decision Under Risk," *Econometrica* (March 1979), pp. 263-291. Kahneman alone was the recipient of the Nobel Prize because Tversky died in 1996, and the Nobel Institute does not give awards posthumously.

tential costs and risks of action, but, equally important, the potential costs of *inaction*.⁶⁰

These path-breaking insights into decision-making under risk have important implications for international politics, especially deterrence.⁶¹ In particular, Prospect Theory suggests that a leader may calculate that the costs of *not* doing something might actually outweigh the potential costs and risks of action, if inaction is believed to result in a significant loss. In such cases, the opponent is likely to have very high resolve and may be willing to take great risks to achieve its objectives.

The classic example of the impact of loss aversion on decision-making is Japan's decision to declare war on the United States and attack Pearl Harbor in December 1941.⁶² Prior to Pearl Harbor, Imperial Japan was engaged in a long, costly, and violent effort to establish the Greater East Asia Co-Prosperity Sphere, a Japanese empire in the Pacific. In response to Japanese aggression, the United States imposed a series of increasingly tough sanctions on Japan, eventually leading up to an embargo on fuel and scrap iron and the freezing of U.S.-based Japanese assets.

These actions put Japan in a difficult position; it could not sustain its imperial ambitions without access to energy and raw materials, but giving in to American pressure would mean that Japan could no longer pursue an empire. From Japan's perspective, the creation of the Greater East Asia Co-Prosperity Sphere was a central objective of its domestic and foreign policy, and giving up the possibility of re-

⁶⁰ The implications of Prospect Theory for deterrence have been recognized by STRATCOM and incorporated into the DO JOC. For example, the DO JOC argues that "encouraging adversary restraint" is an essential element of deterrence. It states, "Encouraging adversary restraint plays a critical role in deterrence operations because adversary decision-makers weigh the benefits and costs of acting (e.g., invading their neighbor, using WMD, attacking the U.S. homeland) in the context of their expectations of what will happen if they do not act (i.e., their perceived consequences of restraint)." See DO JOC, p. 27.

⁶¹ For analysis of the application of Prospect Theory to international relations and deterrence, see Barbara Farnham, ed., *Avoiding Losses/Taking Risks: Prospect Theory and International Conflict* (Ann Arbor: University of Michigan Press, 1994); Jack S. Levy, "Loss Aversion, Framing, and Bargaining: The Implications of Prospect Theory for International Conflict," *International Political Science Review* (April 1996), pp. 179-195; Rose McDermott, "Prospect Theory and Political Science: Gains and Losses from the First Decade," *Political Psychology* (April 2004), pp. 289-312; William A. Boettcher III, "The Prospects for Prospect Theory: An Empirical Evaluation of International Relations Applications of Framing and Loss Aversion," *Political Psychology* (June 2004), pp. 331-361; Gary Schaub, Jr., "Deterrence, Compellence, and Prospect Theory," *Political Psychology* (June 2004), pp. 389-411; Jonathon Mercer, "Prospect Theory and Political Science," *Annual Review of Political Science* (June 2005), pp. 1-21; and Watman and Wilken- ing, *U.S. Regional Deterrence Strategies*, pp. 22-26.

⁶² The proceeding analysis is based on Ariel S. Levi and Glen Whyte, "A Cross-Cultural Exploration of the Reference Dependence of Crucial Group Decisions Under Risk: Japan's 1941 Decision for War," *Journal of Conflict Resolution* (December 1997), pp. 792-813.

alizing this ambition – especially after Japan had already spent so much blood and money to create it – was perceived to be a severe and intolerable loss.⁶³ Japanese leaders did not believe that they could win a protracted war against the United States,⁶⁴ but, faced with the prospect of losing its ability to establish an empire, Japan chose to declare war. From Japan's perspective, the costs of inaction – in this case, acquiescing to the U.S. embargo and asset freeze – was more intolerable than the costs and risks of war. Thus, Japan deliberately chose to start a war that it did not believe it could win in the long run because even a slight chance of success was worth the risk.

Although much of the debate about deterrence credibility has focused on the issue of political resolve, the importance of the military capabilities component of credibility should not be overlooked. Possession of sufficient capabilities to credibly impose costs or deny success is especially important for conventional deterrence, since some potential aggressors may believe that they can withstand, overcome, or block conventional military forces.⁶⁵

While it has been commonplace to argue that the U.S. has unmatched and overwhelming military dominance ever since the end of the Cold War, rising powers are increasingly seeking both symmetric and asymmetric ways to offset U.S. military advantages.⁶⁶ In the case of China, the People's Liberation Army is developing a range of anti-access capabilities intended to diminish the capacity of extra-regional nations to deploy, operate, and sustain forces in its vicinity.⁶⁷ The ability – whether real or perceived – to prevent or weaken U.S. power projection and operational effectiveness can undermine deterrence. In future deterrence scenarios, especially those involving rising powers, the credibility of U.S. deterrence will depend on our ability to persuade a prospective aggressor that we have the necessary capabilities to inflict punishment and/or deny success, no matter what the aggressor may try to do to prevent or hinder our response.

⁶³ Ibid., pp. 800, 804-805.

⁶⁴ Ibid., pp. 793, 808; and Bruce M. Russett, "Pearl Harbor: Deterrence Theory and Decision Theory," *Journal of Peace Research* (1967), p. 98. Japanese leaders apparently calculated that they could win a number of victories early on in the conflict, and that a string of quick victories would convince U.S. leaders to seek a negotiated settlement.

⁶⁵ Richard T. Harknett, "The Logic of Conventional Deterrence and the End of the Cold War," *Security Studies* (March 1994), pp. 88-95.

⁶⁶ See, for example, Ashley J. Tellis, "China's Military Space Strategy," *Survival* (Autumn 2007), pp. 41-72.

⁶⁷ Roger Cliff, Mark Burles, Michael S. Chase, Derek Eaton, and Kevin L. Pollpeter, *Entering the Dragon's Lair: Chinese Anti-Access Strategies and the Their Implications for the United States* (Santa Monica: Rand Corp., 2007).

The Importance of Strategic Communications

The concept of deterrence credibility underscores the central role of strategic communications in deterrence. Because deterrence is based on the threat of force, successful deterrence requires that credible threats be adequately and clearly communicated to the adversary. Mixed messages, half-hearted threats, or a lack of clarity and specificity can undermine deterrence. For example, in the case of the first Gulf War, the United States sent mixed messages to Saddam Hussein about its position on Kuwait. While Defense Secretary Richard Cheney said publicly that the U.S. would defend Kuwait, April Glaspie, the U.S. Ambassador to Iraq, reportedly told Saddam that the U.S. has “no opinion on the Arab-Arab conflicts, like your border disagreement with Kuwait.” If Saddam could have been deterred from attacking Kuwait, the absence of clear and credible threats may have diminished the potential for successful deterrence.⁶⁸

Strategic communications and Information Operations (IO) serve two critical roles in deterrence. At the most basic level, strategic communications are necessary to communicate to adversaries what specific actions we find unacceptable – in other words, to communicate threats. Given the variety of U.S. global interests, political and military leaders should not simply assume that others know what we do not want them to do. In general, the likelihood of successful deterrence is increased when potential aggressors understand which specific actions we want to deter, and when threats and commitments are made as early as possible.⁶⁹

Second, and most important, credibility must be communicated.⁷⁰ While the U.S. may believe that it has the necessary capabilities and political willpower to act on its threats, what matters for deterrence is whether the adversary is sufficiently convinced. If credibility is in the eye of the beholder, and if credibility is central to deterrence, then the potency of U.S. deterrent threats hinges on the ability to communicate a high degree of believability to the adversary. Of all the concepts

⁶⁸ For analysis on the potential for deterrence in the Gulf War, see Janice Gross Stein, “Deterrence and Compellence in the Gulf, 1990-1991: A Failed or Impossible Task?” *International Security* (Fall 1992), pp. 147-179.

⁶⁹ Deterrent threats should be made as early as possible because it is often very difficult for leaders to change course once they have made the decision to act. By the time a leader is about to act, he or she has already become convinced that aggression will be beneficial. Moreover, decision-makers may be reluctant to back down if they believe that doing so will result in economic and political costs, especially a damaged reputation. See, for example, Jervis, “What Do We Want to Deter and How Do We Deter It,” p. 129; Watman and Wilkening, *U.S. Regional Deterrence Strategies*, p. 62; and Michael Conder, “Coercion from the Sea,” in Eric Grove and Peter Hore, eds., *Dimensions of Sea Power* (Bedford: LSL Press, 1998), p. 130.

⁷⁰ Kaufmann, “The Requirements of Deterrence,” p. 17-20.

and theories associated with deterrence, the issue of how to demonstrate or signal resolve has been the most studied by defense analysts and academics.⁷¹

Deterrence is communicated through words and actions. One of the most important methods of verbal communications is a public statement by a high-ranking political leader, such as the President, Secretary of Defense, or Secretary of State. Official and unambiguous public declarations from key decision-makers that define what our interests are, and articulate a willingness to defend them, constitute an important method of communicating both credible threats to adversaries and assurances to allies. Such statements generally attract domestic and international attention and can carry a high degree of credibility because they are made by people in a position to develop, articulate, and implement official policy.

In a recent example, in June 2008 President Bush said, "If Iran did strike Israel...We will defend our ally, no ands, ifs, or buts."⁷² Similarly, Secretary of State Condoleezza Rice said publicly in the aftermath of Iran's missile tests in July 2008 that the U.S. "will defend our interests and defend our allies...We take very, very strongly our obligations to defend our allies and no one should be confused of that."⁷³ Although it is difficult to determine what specific impact, if any, these statements had, these kinds of declarations can send strong messages of deterrence to adversaries and assurance to allies.

Public statements by high-ranking political leaders help communicate resolve by generating "audience costs," which are the potential domestic and international political costs a leader will suffer if he or she backs down or otherwise fails to follow through on a threat or commitment. A threat that is made in public can help convince an opponent that one will actually use force if necessary, since backing down would be costly in terms of a leader's domestic and international reputation, political legacy, and, in a democracy, the chances of re-election and the election of the leader's supporters.⁷⁴

Communicating deterrence credibility is a function of not only what we say, but, equally important, what we do. While public statements are an important compo-

⁷¹ See, for example, Schelling, *Arms and Influence*, ch. 2; Robert Powell, *Nuclear Deterrence Theory: The Search for Credibility* (Cambridge: Cambridge University Press, 1990); James D. Fearon, "Signaling Foreign Policy Interests: Tying Hands Versus Sinking Costs," *Journal of Conflict Resolution* (February 1997), pp. 68-90; and Anne E. Sartori, *Deterrence by Diplomacy* (Princeton: Princeton University Press, 2005).

⁷² "Bush: We'd Defend Israel in Event of Iranian Strike," 1 June 2008, *Haaretz.com*.

⁷³ Michael Schwartz and William J. Broad, "Rice Warns Iran that U.S. Will Defend Allies," *New York Times*, 11 July 2008.

⁷⁴ See James D. Fearon, "Domestic Political Audiences and the Escalation of International Disputes," *American Political Science Review* (September 1994), pp. 577-592; and Fearon, "Signaling Foreign Policy Interests," pp. 68-90. See also Schelling, *Arms and Influence*, p. 43.

nent of communicating credible deterrence, an adversary may not be completely convinced of U.S. credibility by verbal threats and commitments alone. In a future deterrence scenario, a potential attacker who believes that the U.S. is a "paper tiger" unwilling to stomach the costs of war may discount verbal threats as a bluff or "cheap talk." Following the old adage that "actions speak louder than words," in many cases an adversary's perception of U.S. credibility will depend on U.S. actions as well as declaratory policy and public rhetoric.

Military actions can be used as a political instrument to influence an opponent's beliefs, perceptions, and behaviors.⁷⁵ These actions include both routine and iterative activities such as joint exercises, forward presence, port visits, and the overall Steady-State Security Posture, as well as one-time events designed to send a particular message in a specific context. In both cases, the objective is to communicate credibility to an adversary by sending signals that convey information about U.S. interests, capabilities, and resolve. Thus, when the United States sent USS *Missouri* to Turkey in March 1946 to deliver the remains of a deceased Turkish ambassador, it was intended to send a particular signal to the Soviet Union, which had recently demanded concessions from Turkey in the aftermath of the Second World War, that the United States was interested in the fate of Turkey and that it could project power anywhere in the world.⁷⁶

U.S. actions can help signal deterrence credibility in a number of ways. At the most basic level, because an important component of credibility is possession of sufficient military capabilities to deny benefits and impose costs, actions demonstrate the ability to project and sustain substantial combat power. It is important to note, however, that the capabilities component of credibility is not simply a function of possessing *any* kind or amount of military capabilities, but rather the *necessary and proper* capabilities required to impose costs on, and deny success to, a *specific* adversary. Given the variety of opponents that the U.S. may attempt to deter, satisfying the capabilities side of deterrence credibility will require signaling that the U.S. has a wide range of capabilities that can be "tailored" to each opponent.⁷⁷

⁷⁵ Barry M. Blechman and Stephen S. Kaplan, *Force Without War: U.S. Armed Forces as a Political Instrument* (Washington, DC: The Brookings Institution, 1978), pp. 4, 12.

⁷⁶ *Ibid.*, pp. 1-2; and Edward N. Luttwak, *The Political Uses of Sea Power* (Baltimore: Johns Hopkins University Press, 1974), pp. 31-33.

⁷⁷ On "tailored" deterrence, see M. Elaine Bunn, *Can Deterrence be Tailored?* Strategic Forum No. 225, January 2007, Institute for National Strategic Studies, National Defense University, pp. 4-6. See also Edward Rhodes, Jonathon M. DiCicco, Sarah S. Milburn, and Thomas C. Walker, *Presence, Prevention, and Persuasion: A Historical Analysis of Military Force and Political Influence* (Lanham: Lexington Books, 2004), pp. 394-397.

Actions can also communicate information about resolve. While an adversary's perceptions of U.S. resolve are primarily based on judgments about the willingness of political leaders and the American public to stomach the human and financial costs of war, military capabilities and operations can have important second-order effects on assessments of resolve.

If a political leader has made a threat to an adversary or a commitment to defend an ally, U.S. actions such as deploying forces in the region, selling or transferring military equipment, or conducting joint exercises with the ally can help substantiate those claims. In this context, U.S. actions are used as a tangible signal that U.S. leaders are serious about upholding their threats and commitments. The combination of clear public statements by political leaders and military presence in the region sends the strongest deterrence message.

During the Cold War, the United States backed up its verbal threats and extended deterrence commitments by deploying conventional and nuclear forces in Europe, maintaining nuclear missile and bomber crews on 24-hour alert, and conducting continuous SSBN deterrent patrols, to name only a few. These actions were instrumental in communicating the credibility of our threats to the Soviet Union, as well as the credibility of our commitment to defend the NATO allies. These kinds of actions continue today with the ongoing (although dwindling) presence of U.S. forces in Europe, Japan, and the Republic of Korea, military equipment sales to Taiwan, and the U.S. presence in the Balkans a decade after the conflicts there ended.

In situations where political officials have not made specific threats or commitments to defend an ally, military operations can still impact perceptions of resolve. Since an important influence on – and indicator of – U.S. resolve is the interests we have at stake, repeated military activities around the world can signal to potential adversaries what our interests are, and consequently where U.S. resolve is likely to be high.⁷⁸ Empirical and quantitative research has shown that extended deterrence is more likely to be successful when there are extensive political, economic, and military ties between the protector (the United States) and the ally (the nation to be defended).⁷⁹ These kinds of connections can increase perceptions of resolve by signaling that the United States has a significant interest in the safety and security of those countries, and therefore we might be willing to use force to protect them.

⁷⁸ On the role of naval forces in a “show of interest,” see Charles D. Allen, Jr., *The Uses of Navies in Peacetime* (Washington: American Enterprise Institute, 1980), p. 23.

⁷⁹ See, for example, Danilovic, *When the Stakes are High*; Paul Huth and Bruce Russett, “What Makes Deterrence Work?” pp. 515-516, 523; and Huth, *Extended Deterrence and the Prevention of War*.

In addition, military capabilities – especially missile defense – can also contribute to perceptions of U.S. resolve. As noted earlier in this chapter, one of the keys to convincing adversaries of our resolve involves persuading them that we will use force if our demands are not met, even if using force could be costly for us. The perceived ability to limit the damage that an adversary can inflict on U.S. territory or allies can strengthen assessments of resolve by helping mitigate some of the risks involved in confronting an aggressive regime.

Finally, one of the most important effects of visible military activities and operations by forward-deployed, combat-credible forces is to generate uncertainty about U.S. resolve in the mind of the adversary leadership. As many analysts and scholars have argued since the Cold War, U.S. threats and commitments do not have to be completely credible to deter.⁸⁰ Uncertainty about U.S. intentions and resolve can be sufficient for deterrence since, if an opponent miscalculates, it faces the prospect of destruction and defeat. For many regimes, the *possibility* that an offensive could trigger a U.S. response that leads to defeat, punishment, domestic and international humiliation, and perhaps even the loss of power is enough to tip cost/benefit calculations in favor of restraint.

Assessing Strategic Communications: The Challenges of Signaling

The use of military actions to send deterrence signals is a complex, challenging, and somewhat unpredictable task. Signaling is a subjective process, and it is difficult to know for certain what impact, if any, a particular signal (or set of signals) will have. There is always the possibility that signals will be undetected, disregarded, or misinterpreted, or will not ever reach the right decision-makers within a regime.

In some instances, U.S. signals intended to enhance credible deterrence could be dangerous and counterproductive. For example, an adversary could perceive U.S. actions as a signal of an impending attack, in which case it might choose to attack first. In this situation, U.S. actions intended to deter, such as deploying or increas-

⁸⁰ See, for example, Schelling, *Arms and Influence*, pp. 97-98; Kenneth N. Waltz, "Nuclear Myths and Political Realities," *American Political Science Review* (September 1990), pp. 731-744; Waltz and Scott D. Sagan, *The Spread of Nuclear Weapons: A Debate Renewed* (New York: W.W. Norton and Co., 2003), pp. 9, 15, 24, 141-144; and Robert Jervis, "The Confrontation Between Iraq and the U.S. – Implications for the Theory and Practice of Deterrence," *European Journal of International Relations* (June 2003), pp. 321-322. For a review and critique of the Cold War debates about the degree of credibility needed for deterrence, see Charles L. Glaser, "Why Do Strategists Disagree about the Requirements of Strategic Nuclear Deterrence?" in Lynn Eden and Steven E. Miller, eds., *Nuclear Arguments: Understanding the Strategic Nuclear Arms and Arms Control Debates* (Ithaca: Cornell University Press, 1989), pp. 109-171.

ing forces in theater, might be misperceived as a prelude to war.⁸¹ In other cases, U.S. signals might be undetected or unpersuasive, such as President Richard Nixon's attempt in October 1969 to bring a quick end to the Vietnam War by putting U.S. nuclear forces on alert. The nuclear alert was intended to send a signal to the Soviets and the North Vietnamese that President Nixon might be willing to do anything to end the war, including using nuclear weapons. Despite the apparent seriousness of a nuclear alert, the signal did not have the desired effect on the Soviet Union or North Vietnam.⁸²

Increasing the likelihood that signals will be received and correctly interpreted requires developing and maintaining detailed and sophisticated profiles of current and potential adversaries. At a minimum, this entails understanding how various regimes collect, interpret, and transmit information through the chain of command. In addition, understanding an adversary's unique strategic culture is essential, since overall perceptions of the United States and interpretations of specific signals will be filtered through a particular strategic lens. By developing and maintaining in-depth information about our opponents, military strategists and planners can develop deterrence signaling strategies that are tailored to have maximum impact on each specific regime.⁸³

Finally, our research highlights two additional aspects of strategic communications that may be overlooked in deterrence planning. The first is the importance of communicating to adversaries that we know what they value. While it is now common wisdom among defense analysts and military officials that effective deterrence requires a detailed understanding of what adversaries value in order to hold those things at risk,⁸⁴ there has been much less attention paid to the necessity of communicating this information to the adversary. It is not enough for deterrence that we know what a regime values; successful deterrence requires that regime leaders understand that we know what is most important to them. Since deterrence depends in part on the threat to destroy what the enemy values, the United States must communicate to the regime that we know what that is, and that we will destroy it (or otherwise take it away) if they engage in unacceptable actions.

⁸¹ See, for example, Jervis, *Perception and Misperception in International Politics*, ch. 3; Edward Rhodes, "Conventional Deterrence," *Comparative Strategy* (Fall 2000), p. 242; Luttwak, *The Political Uses of Seapower*, p. 6; and Thomas C. Schelling, *The Strategy of Conflict* (Cambridge: Harvard University Press, 1960), ch. 9.

⁸² Sagan and Suri, "The Madman Nuclear Alert: Secrecy, Signaling, and Safety in October 1969," pp. 150-183.

⁸³ M. Elaine Bunn, *Can Deterrence be Tailored?* pp. 6-7.

⁸⁴ See, for example, Keith B. Payne, *The Fallacies of Cold War Deterrence and New Direction* (Lexington: University Press of Kentucky, 2001), pp. 105-114; and DO JOC, p. 16.

Second, sustained and comprehensive Information Operations are essential to achieving maximum impact from actions and capabilities that help signal credible deterrence. Deterrence signals can be effective only if an opponent is aware of the operations and actions that send them, and IO plays a critical role in deterrence by publicizing and providing information about military activities. For example, when the Navy conducts joint exercises, port visits, or staff talks with allies, there should be a sustained effort, when possible, to make sure that adversaries are aware of these activities. Similarly, since the deterrent value of USN operations near an adversary's coast can be beneficial only if political and military leaders are aware of them, an IO campaign that publicizes its presence can help ensure that leaders receive the message.

In addition, providing information through IO campaigns about new or emerging military capabilities can have an important impact on deterrence. Political and military leaders should not simply assume that others are aware of all U.S. capabilities, or that they understand the implications of those capabilities for our capacity to impose costs and deny success.

The development and implementation of Sea Basing, for example, can be an important enabling component of conventional deterrence. Sea-basing gives U.S. forces the ability to engage in combat without the use of forward land-based operating locations in neighboring countries.⁸⁵ This capability can enhance deterrence by convincing some potential attackers that they cannot hope to prevent or complicate U.S. force projection by persuading or coercing other nations in the region to deny base access. While this is certainly an important and useful capability, because deterrence calculations occur in the mind of the adversary, the key question is whether the opponent is aware of it. In this instance, as in others, IO campaigns can help bridge the gap between what we know about our capabilities and what current and future adversaries understand about them.

This discussion of Strategic Communications and IO highlights an important point about the nature of conventional deterrence: credible conventional deterrence often requires communicating some information about U.S. capabilities and war-fighting strategies to adversaries. With nuclear deterrence, the sheer destructive power of nuclear weapons and the inability to eliminate all sea, land, and air-based delivery systems imparts a certain degree of inherent credibility to the capacity to inflict unacceptable costs. Conversely, with conventional deterrence, the limited destructive power of conventional weapons combined with the perceived possibility of withstanding or "designing around" conventional forces suggests that the United States must actively convince opponents that non-nuclear capabilities

⁸⁵ On the concept of Sea Basing, see Admiral Vern Clark, USN, "Sea Power 21: Projecting Decisive Joint Capabilities," *Proceedings* (October 2002), pp. 36-37; and Vice Admiral Charles W. Moore, Jr., USN and Lieutenant General Edward Hanlon Jr., USMC, "Sea Basing: Operations Independence for a New Century," *Proceedings* (January 2003), pp. 80-85.

and strategies are able to impose costs and deny success. From this perspective, the bar for persuading an adversary of the credibility of conventional deterrence is much higher than in the nuclear context.

There is a tension, however, between revealing information to enhance deterrence and providing adversaries with the knowledge to overcome our conventional power. Thus, effective Strategic Communications and IO involve striking the right balance between communicating just enough information about U.S. forces and war-fighting strategies to make conventional deterrence credible, while withholding certain information that could be used by an opponent to negate or offset those plans and capabilities.⁸⁶

⁸⁶ This discussion is based on Harknett, "The Logic of Conventional Deterrence and the End of the Cold War," pp. 88-99; Rhodes, "Conventional Deterrence," pp. 227-230; and Shimshoni, *Israel and Conventional Deterrence*, pp. 12-16.

Conventional Deterrence in the Modern International Security Environment

The preceding analysis has examined core concepts of deterrence that are relevant in both the nuclear and conventional arenas. Having identified and analyzed the central theoretical components of deterrence, we now focus on how they apply specifically in the conventional context.

The logic and strategy of conventional deterrence is based on three inter-related propositions, which we examine in subsequent sections of this chapter:

1. In general, leaders considering conventional aggression want quick, inexpensive victories. The history of conventional warfare demonstrates that most nations seek quick, blitzkrieg-style wars rather than protracted wars of attrition, although they do not always turn out that way. Given current U.S. conventional dominance, adversaries contemplating aggression against U.S. interests are especially likely to seek rapid wars in which they will have minimal contact with American forces.
2. Conventional deterrence is primarily based on deterrence by denial. Since adversaries typically seek swift and low-costs conflicts, conventional deterrence is most likely to succeed when the U.S. credibly threatens to deny the enemy's ability to achieve its objectives quickly and cheaply.
3. In conventional deterrence, "local" military power – those forces that are already in the area or that can be rapidly deployed to the theater – are most important. If, as noted above, adversaries want short and cheap wars, and if the key to deterring conventional aggression is convincing those adversaries that they will not be able to achieve such an objective, then credible and effective deterrence requires that U.S. forces be in or near the region (or can be quickly deployed to the region) for an immediate response at the outset of conflict.

Adversaries seek a quick and inexpensive victory

Conventional wars can be long, bloody, and costly endeavors, such as the First and Second World Wars, the Korean War, and the Vietnam War, or they can be quick and relatively inexpensive, such as the 10-week-long Spanish American War in 1898 (which U.S. Ambassador John Hay called a “splendid little war”), the first Gulf War in 1990-1991, and NATO’s war in Kosovo in 1999. Despite detailed, sophisticated analyses of military capabilities, geographical factors, economic capacity, and political dynamics, no one can know for certain in advance how a conflict will actually turn out. In fact, in the run-up to the First World War, which turned out to be one of the longest and most violent wars of the 20th century, leaders developed offensive strategies and forces in the belief that attacking was easier than defending, and that rapid mobilization and attack would provide a quick victory.⁸⁷

War is inherently unpredictable, and most leaders do not want to get entrenched in a costly and bloody conflict (such as a war of attrition) in which there is no end in sight and the final outcome is uncertain. As a result, political and military leaders typically desire and plan for short, inexpensive wars.⁸⁸

The desire for relatively quick, low-cost wars has always been an important feature of military planning and political cost/benefit calculations, and we assess that this trend is especially relevant and likely to continue in the modern international security environment. Long and costly wars can ruin economies and create domestic political instabilities that undermine the effectiveness, reputation, and survival of the ruling party or regime.⁸⁹ Moreover, in light of current U.S. conventional force advantages, many potential aggressors are unlikely to desire long conflicts because they do not have the capabilities and industrial base to sustain a protracted war.

⁸⁷ See Jack Snyder, *Ideology of the Offensive: Military Decision Making and the Disasters of 1914* (Ithaca: Cornell University Press, 1984); Stephen Van Evera, “The Cult of the Offensive and the Origins of the First World War,” *International Security* (Summer 1984), pp. 58-107; and Van Evera, *The Causes of War: Power and the Roots of Conflict* (Ithaca: Cornell University Press, 1999).

⁸⁸ Measheimer, *Conventional Deterrence*, p. 24; Watman and Wilkening, *U.S. Regional Deterrence Strategies*, pp. xii, 67; Van Evera, *Causes of War*, ch. 2; and Huth, *Extended Deterrence and the Prevention of War*, pp. 39-40.

⁸⁹ Watman and Wilkening, *U.S. Regional Deterrence Strategies*, p. 67.

The concept and desirability of short-duration wars has become an important component of China's military doctrine, which envisions "Local Wars Under Modern High-Technology Conditions."⁹⁰ Likewise, according to a high-ranking North Korean defector in 1997, Kim Jong-Il apparently believed that he could achieve a very quick victory against South Korea by launching a massive missile strike on Seoul, while at the same time deterring U.S. intervention by threatening missile attacks on Japan.⁹¹

Although less is known about Iran's military doctrine, there is some evidence suggesting that Tehran is more pragmatic and strategic in its military planning than some if its inflammatory rhetoric, especially from President Mahmoud Ahmadinejad, would suggest.⁹² For example, the November 2007 National Intelligence Estimate (NIE) on Iran's nuclear intentions and capabilities said that Iran's decision to halt its nuclear weapons program in 2003 suggests that "Tehran's decisions are guided by a cost-benefit approach rather than a rush to a weapon irrespective of the political, economic, and military costs."⁹³

While we cannot definitively extrapolate how Iran's decision-making on its nuclear program reflects its conventional military strategy, this does suggest that Tehran can and does make logical cost/benefit strategic calculations. Moreover, Iran does seem to understand the concept of deterrence, as it has recently made some deterrent threats of its own. In discussing the possibility of an Israeli strike on Iran's nuclear facilities, Nour Ali Shoushtari, the deputy commander of the Islamic Revolutionary Guard Corps (IRGC) ground forces, has said, "Today, the enemy does not dare attack Iran, as it knows that it will receive fatal blows from Iran if it ventures into such a stupid act."⁹⁴

In future contexts, the desire for rapid, low-cost victories may lead states considering conventional aggression against U.S. interests to consider employing a "*fait ac-*

⁹⁰ See David M. Finkelstein, "China's National Military Strategy," in James C. Mulvenon and Richard H. Yang, *The People's Liberation Army in the Information Age* (Santa Monica: Rand Corp., 1999), p. 127.

⁹¹ Kevin Sullivan, "Key Defector Warns Again of North Korean War Plans," *Washington Post*, 10 July 1997, p. A23. This story is discussed in Forest E. Morgan, Karl P. Mueller, Evan S. Medeiros, Kevin L. Pollpeter, and Roger Cliff, *Dangerous Thresholds: Managing Escalation in the 21st Century* (Santa Monica: Rand Corp., 2008), p. 91.

⁹² See, for example, Ray Takeyh, *Hidden Iran: Paradox and Power in the Islamic Republic* (New York: Times Books, 2006).

⁹³ *Iran: Nuclear Intentions and Capabilities*, National Intelligence Estimate, National Intelligence Council, Office of the Director of National Intelligence, November 2007, p. 6.

⁹⁴ "Iran Brushes Off French Warning of Israeli Attack," *Global Security Newswire*, 8 September 2008, p. 10.

compli” strategy.⁹⁵ The purpose of this strategy is to quickly achieve limited military objectives, such as seizing a piece of territory, with little or no engagement with U.S. forces. A *fait accompli* hinges on strategic surprise; the goal is to attack and swiftly achieve victory before the U.S. has time to mobilize and deploy forces to the theater.⁹⁶ After accomplishing limited battlefield objectives, the adversary can switch to an alerted defensive posture designed to defend against a counter-attack by then-arriving U.S. (and perhaps coalition) forces. By striking quickly and then digging in its heels in a defensive posture, the adversary hopes to deter – or at least complicate – U.S. intervention to reverse gains and restore the status quo.⁹⁷

The ability to deny victory

There is a general consensus in the academic and policy literature on conventional deterrence, most of which was written during the Cold War, that conventional deterrence is primarily based on the ability to deny the aggressor a quick and inexpensive victory.⁹⁸ If a state believes that it can achieve rapid victory, perhaps by employing a *fait accompli* strategy, deterrence is more likely to fail. Conversely, if a state believes that it cannot achieve its goals swiftly and cheaply, deterrence is more likely to succeed.⁹⁹

In the current era, the concept of denying victory will likely apply differently depending on the adversary’s motivations for aggression. As discussed earlier, Prospect Theory suggests that decision-makers are more risk-averse when seeking gains, and more willing to accept risk and sustain costs to prevent loss. Thus, in situations where an adversary is seeking gains through opportunistic aggression, deterrence is likely to be strong if the U.S. can credibly threaten to deny the opponent a relatively quick and low-cost victory. Even if a regime believes that it might be able to achieve its objectives in the long run through a protracted con-

⁹⁵ The *fait accompli* strategy is based on John Mearsheimer’s concept of a “limited aims” strategy. See Mearsheimer, *Conventional Deterrence*, pp. 30, 53-54. See also Alexander L. George and Richard Smoke, *Deterrence in American Foreign Policy: Theory and Practice* (New York: Columbia University Press, 1974), pp. 536-540; Watman and Wilkening, *U.S. Regional Deterrence Strategies*, p. 67; and Rhodes, “Conventional Deterrence,” pp. 222-223.

⁹⁶ Mearsheimer, *Conventional Deterrence*, pp. 53-54.

⁹⁷ Ibid.

⁹⁸ See *ibid.*, pp. 24, 30, 64, 206-208; Watman and Wilkening, *U.S. Regional Deterrence Strategies*, p. 67; Rhodes, “Conventional Deterrence,” pp. 243-247; Van Evera, *Causes of War*, pp. 30-34; and Lebow, *Between Peace and War*, p. 248. On the importance of denial in compellence, see Pape, *Bombing to Win*, pp. 10, 19-38; and Pape, “Coercion and Military Strategy: Why Denial Works and Punishment Doesn’t,” *Journal of Strategic Studies* (December 1992), pp. 423-475.

⁹⁹ Huth, *Extended Deterrence and the Prevention of War*, p. 40.

flict, the prospect of a long and expensive war against a conventionally superior nation may be enough to induce caution and restraint.¹⁰⁰

However, for regimes motivated by the perceived need to prevent losing something of great value, such as domestic political power, reputation, or a piece of territory, conventional deterrence will be significantly more difficult. States seeking to avert loss may be willing to fight a long and costly conventional conflict, especially if the stakes are deemed crucial to national security and it is believed that the costs of inaction outweigh the costs and risks of action. While these regimes are still likely to prefer a short and inexpensive conflict, they may be willing to fight longer and harder if the stakes are high enough.

In these cases, the ability to deny only a swift and cheap victory might be insufficient for deterrence, since the leadership could believe that the stakes are important enough to fight over the long run in the hope that it can eventually achieve victory. This sentiment is especially likely to influence an adversary's cost/benefit calculations if it believes that U.S. resolve is relatively weak, because then it might calculate that it could accomplish its objectives in the long run by wearing down American political willpower through a long and bloody war of attrition.¹⁰¹ As a result, the United States must credibly threaten to defeat the adversary, rather than simply deny the prospect of a quick and cheap victory, in the early stages of conflict so that the opponent cannot hope to achieve its objectives by prolonging the fight. For regimes motivated to prevent loss, credible deterrence will not hinge on the ability to deny only a quick victory, but rather on the ability to completely defeat the opponent quickly.

While the strategy of conventional deterrence primarily depends on deterrence by denial, the usefulness and applicability of deterrence by punishment should not be overlooked. In practice, a robust and flexible deterrence strategy should combine both mechanisms of deterrence, as some adversaries are more likely to be deterred by the threat of punishment and others by the threat of denial.

For example, some leaders may believe that U.S. conventional forces are not powerful and destructive enough to inflict truly unacceptable costs (punishment) that will drastically outweigh the potential benefits of aggression. These leaders may convince themselves that they can simply withstand or "ride out" whatever

¹⁰⁰ Mearsheimer, *Conventional Deterrence*, p. 24.

¹⁰¹ In fact, consistent with the traditional conventional deterrence concept of denying quick victory, some opponents may attempt to use the threat of a protracted and bloody conflict to deter the U.S. from using force. For example, in the run-up to the first Gulf War, Saddam Hussein attempted to deter the U.S. and its coalition partners from intervening to eject Iraqi forces from Kuwait by threatening to create "rivers of blood." See Alistair Horne, "The Longest Battle," *New York Times*, 17 February 1991.

punishment our conventional forces can inflict. For these regimes, threats to deny success may be a more potent deterrent than threats of punishment.

On the other hand, some opponents may convince themselves that U.S. conventional forces will not be able to successfully deny their objectives. Leaders may believe that they can achieve their aims in spite of our conventional power because they have greater resolve than the United States (and are therefore willing to fight longer and harder, and sustain more casualties), because they can achieve their goals before substantial U.S. conventional power arrives in theater (*a fait accompli*), because they have a better conventional warfighting strategy, because they have a “homefield advantage” since the conflict is on or around their homeland, or because they can employ asymmetric tactics to offset U.S. conventional advantages (such as supporting terrorism or acquiring WMD). In these cases, threats of punishment may be a more effective deterrent.¹⁰²

In general, however, denial has an important advantage over punishment: if conventional deterrence fails and a conflict occurs, a force posture designed for deterrence by denial is more easily transformed into a capability to engage in conflict, control escalation, and win the war. Given that a credible deterrence by denial strategy requires that an adversary believe that U.S. forces are actually capable of carrying out the threat to deny victory, this force posture is inherently designed to fight and win a conflict in the event of a deterrence failure.¹⁰³ According to Lawrence Freedman, “In principle, denial is a more reliable strategy than punishment because, if the threats have to be implemented, it offers control rather than continuing coercion. With punishment, the [adversary] is left to decide how much more to take. With denial, the choice is removed.”¹⁰⁴

¹⁰² On the potential difficulties of conventional punishment and denial strategies, see Pape, *Bombing to Win*, pp. 9-10, 22-23; Allan, “Extended Conventional Deterrence,” p. 210; Rhodes, “Conventional Deterrence,” pp. 221-254; and Harknett, “The Logic of Conventional Deterrence and the End of the Cold War.”

¹⁰³ According to Karl Mueller, “Denial offers an additional advantage over punishment, in that it fails gracefully if it does not work. The actions a coercer takes to convince the enemy that defeat is inevitable are basically the same as those required to make defeat actually occur; that is, prosecuting a denial strategy looks very much like pursuing a pure force victory. If it fails, the effort will not have been wasted.” See Karl Mueller, “Strategies of Coercion: Denial, Punishment, and the Future of Air Power,” *Security Studies* (Spring 1998), pp. 191-192.

¹⁰⁴ Lawrence Freedman, *Deterrence* (Cambridge: Polity Press, 2004), p. 39.

The importance of the local balance of forces

The discussion of the first and second pillars of conventional deterrence emphasizes the importance of speed in conventional conflict: adversaries typically seek swift and inexpensive wars, and deterrence is principally based on the credible threat to rapidly engage the adversary and deny a quick victory. Given the significance of speed, an adversary's cost/benefit calculations are likely to be based largely on its judgment of the local balance of forces – that is, the balance of conventional capabilities between the attacker and defender that are stationed in the region, including forces that can be deployed to the region quickly.¹⁰⁵

The local balance of power plays a critical role in conventional deterrence, since it is those forces that are in or near the potential theater of combat that will primarily impact an opponent's calculations about its ability to win a quick victory.¹⁰⁶ Statistical research and historical case studies demonstrate that the local balance of power has an important impact on the likelihood of successful deterrence. This research shows that when the balance favors the adversary, successful deterrence is more likely to fail because the regime will calculate that it can achieve rapid and low-cost success (perhaps by employing a *fait accompli* strategy), and that deterrence is more likely to succeed when the local balance favors the deterrer.¹⁰⁷ A favorable local power balance contributes to deterrence both for regimes motivated by gains and for those motivated to prevent loss: for states considering opportunistic aggression, local U.S. force advantages will help convince leaders that they cannot achieve a quick and inexpensive victory; for regimes considering an offensive to prevent loss, local conventional dominance contributes to deterrence by helping to persuade the adversary that aggression will lead to quick and total defeat.

The importance of the relative local balance of capabilities suggests that overall U.S. conventional superiority *in and of itself* is not as relevant to deterrence as some analysts have previously suggested.¹⁰⁸ It is certainly true that the United States currently possesses overwhelming conventional capabilities and that, at a very basic level, this fact may have some influence on a regime's cost/benefit calculus. However, the available evidence suggests that overall power advantages are less impor-

¹⁰⁵ Huth, *Extended Deterrence and the Prevention of War*, pp. 58-60; and Edward Rhodes, et al, *Presence, Prevention, and Persnasion*, p. 396.

¹⁰⁶ Watman and Wilkening, *U.S. Regional Deterrence Strategies*, p. 68.

¹⁰⁷ Huth, *Extended Deterrence and the Prevention of War*, chs. 3-5; Watman and Wilkening, *U.S. Regional Deterrence Strategies*, pp. 67-72; and Rhodes, "Conventional Deterrence," pp. 245-246.

¹⁰⁸ See, for example, Gary L. Guertner, "Deterrence and Conventional Military Forces," *Washington Quarterly* (Winter 1993), p. 142; and Allan, "Extended Conventional Deterrence," p. 208.

tant for deterrence than a potential aggressor's judgment of the local balance of power. Consequently, despite overall conventional superiority, deterrence can still fail if an opponent believes it has an advantage at the local level.

Deterrence at Phases 0, 1 and 2 – General Deterrence, Immediate Deterrence, Compellence, and Escalation Control

Deterrence is a complex and dynamic process that occurs in different form, function, and intensity at various stages of the conflict spectrum. The traditional view of deterrence is that it is employed primarily in a severe crisis – a situation in which one nation is about to use force and another threatens to deny benefits and/or impose costs in order to deter an attack. In reality, these situations are actually quite rare.¹⁰⁹ In practice, deterrence operates less like a traditional light-switch – something that is turned either on or off – and more like a dimmer-switch, in that it is always on to some degree and its intensity can be adjusted according to the specific situation.¹¹⁰

Deterrence can operate during peacetime, in crises, and throughout conflict. Depending on the specific circumstances – peace, crisis, and various stages of war – deterrence operations will have different objectives and use different kinetic and non-kinetic tools to help influence the adversary's decision calculus.

In peacetime, the primary objectives of deterrence are to prevent surprise attacks and deter actions that might lead to a crisis. During a crisis, the main goal of deterrence is to prevent the adversary from undertaking specific actions. If there is a surprise attack or a crisis erupts into war, the primary objectives in the early stages of conflict are to control escalation and set the conditions for a quick end to the war on terms favorable to the United States and its allies. Here, both deterrence and compellence play an important role: deterrence is used to help prevent escalation, and compellence is used to persuade the adversary to terminate the conflict and restore the pre-war status quo.

¹⁰⁹ Morgan, *Deterrence Now*, p. xvi; and Morgan, *Deterrence: A Conceptual Analysis*, p. 29.

¹¹⁰ The authors thank Mr. David Hamon, Director of Research of the Advanced Systems and Concepts Office of the Defense Threat Reduction Agency (DTRA-ASC0), for suggesting the light-switch metaphor.

The application of deterrence and compellence operations in peacetime, crises, and war are closely tied to the concept of Phase 0, 1, and 2 operations as outlined in Joint Publication 3-0, entitled *Joint Operations*.¹¹¹

- **Phase 0: Shape**
Phase 0 activities are continuously executed operations designed to “shape” the strategic environment in order to create conditions favorable to the advancement of cooperative peace, prosperity, and stability. Phase 0 shaping operations occur in peacetime and are intended to dissuade and deter adversaries and assure allies.
- **Phase 1: Deter**
In Phase 1, the primary objective is to deter specific actions by a particular adversary. At this point, an opponent appears to be considering undertaking unacceptable actions, and the United States attempts to deter these actions by threatening to deny benefits and/or impose costs. Phase 1 is analogous to a political/military crisis, such as the Cuban Missile Crisis in October 1962 or the Taiwan Straits Crisis in 1996, where political tensions are high and military forces may be mobilized, and consequently there is an immediate potential for deliberate, inadvertent, or accidental escalation to war.
- **Phase 2: Seize the Initiative**
Phase 2 operations occur at the outset and in the early stages of conflict. The objective is to execute offensive actions quickly in order to establish dominance of the battlespace and set the conditions necessary for defeat/conflict termination.

Phase 0: General Deterrence

General deterrence refers to the continuous, “day-to-day” deterrence signals that Phase 0 activities can send to current and potential adversaries. The primary objective of general deterrence is to prevent regimes from ever seriously considering an attack by maintaining a constant, unwavering display of military power that demonstrates to all potential aggressors that undertaking *any* harmful actions or policies against U.S. interests will be disastrous and costly. This form of deterrence is “general” because it is not specific to any particular nations, actions, or policies; rather, general deterrence seeks to create a broad and undefined strategic threat

¹¹¹ *Joint Operations*, Joint Publication 3-0, Joint Chiefs of Staff, 13 February 2008, p. IV-26–IV-29.

that permanently swings all states' cost/benefit calculations against risk-taking and military adventurism.¹¹²

In general deterrence, the intended deterrent effect is derived solely from the possession of military capabilities displayed through routine peacetime operations and activities.¹¹³ This form of deterrence is best thought of as a continuous and omnipresent "show of force" designed to persuade others that they should not act in ways that might bring about the application of that force against them.¹¹⁴ By engaging in Phase 0 operations such as forward naval presence and joint exercises, the U.S. can send signals that convey information about our ability to project and sustain force, and therefore our ability to deny victory and inflict punishment if the need arises.

More broadly, general deterrence seeks to instill standards and expectations of behavior that are internalized over time. By conducting continuous forward military operations, this form of deterrence is intended to create and maintain a strategic environment in which other nations are well aware of what and where U.S. interests are, and come to believe that they must not challenge them. The goal is that, over time, knowledge of U.S. interests and military power will become so well known that they become embedded in the minds of leaders to the point at which they do not ever seriously consider aggression.¹¹⁵ If general deterrence is effective, leaders will not come to believe that there are ever "windows of opportunity" that can be exploited for aggression against U.S. interests.

In practice, one way in which general deterrence has traditionally been conducted and reinforced is through the sustained presence of U.S. forces in Europe and the Western Pacific. Since the end of the Cold War the United States has increased its basing and forward-deployed force presence in the Persian Gulf. Forward deployed forces have access and situational awareness built on many years of pres-

¹¹² The concepts of general and immediate deterrence were developed by Patrick Morgan. See Morgan, *Deterrence: A Conceptual Analysis*, ch. 2; and Morgan, *Deterrence Now*, ch. 3. Other analyses of general deterrence include Paul Huth and Bruce Russett, "General Deterrence Between Enduring Rivals: Testing Three Competing Models," *American Political Science Review* (March 1993), pp. 61-73; and Gerald L. Sorokin, "General Deterrence and Alliance Formation: A Game-Theoretic Model and the Case of Israel," *Journal of Conflict Resolution* (June 1994), pp. 298-325.

¹¹³ Morgan, *Deterrence Now*, pp. 81, 109.

¹¹⁴ However, as we discussed in chapter 2, a critical element of successful deterrence is that threats are credible, and credibility is a function of an adversary's perception of U.S. capabilities and resolve. Thus, while Phase 0 activities that contribute to general deterrence, such as forward naval presence, can send signals about U.S. military power and where important U.S. interests are (which, as we discussed in chapter 2, can indicate where U.S. resolve is likely to be high), it alone might be insufficient for credible deterrence because it does not signal concrete information about political willpower.

¹¹⁵ Freedman, *Deterrence*, pp. 4-5, 29-32. Freedman calls this "internalized" or "norms-based" deterrence.

ence and multi-lateral cooperation. These forces have the reach and mobility to respond to crises, and as first-responders in case of conflict, they can promptly deny benefits and impose punishment on regional aggressors. Moreover, these forces are used as a sign of U.S. commitment and resolve, which can simultaneously assure allies and deter adversaries.

Phase 1: Immediate Deterrence

Whereas general deterrence is used in peacetime and conveys non-specific threats, immediate deterrence refers to direct threats designed to deter specific behaviors. This form of deterrence is used in acute political and military crises, where states are in a heated dispute and the possibility of conflict is severely elevated. In immediate deterrence, one side is seriously considering an attack, and the other side, aware that its opponent is preparing to strike, issues specific verbal threats and mobilizes forces in an effort to deter the other from following through with the attack.¹¹⁶

In many instances, a situation that calls for immediate deterrence reflects a failure of general deterrence.¹¹⁷ Phase 0 activities, if they were attempted, were ignored, misinterpreted, or not received, and a regime has taken steps toward the use of force. At this stage, a state has already made aggressive overtures to a point that necessitates the transition from Phase 0 to Phase 1, and it will require a concerted political and military effort to convince the opponent to refrain from aggression.

In Phase 1, the credibility of U.S. deterrent threats is crucial. Whereas Phase 0 general deterrence is primarily based on signaling capability, and is therefore conducted mainly by the military, Phase 1 immediate deterrence also requires the involvement of political leaders to communicate resolve.

A key element of Phase 1 is the *deliberate* and *visible* re-deployment of military forces away from routine operations and into an alerted war-fighting posture in the vicinity of the potential conflict. That the movement of combat-credible power to the theater is both deliberate and visible is critical: an important element of demonstrating resolve in a crisis is making an opponent aware that political leaders have explicitly directed the movement of substantial military force into the region in preparation for a possible conflict, and these forces should generally be as visible as possible in order to help convince the adversary that aggression will only lead to defeat and punishment.

¹¹⁶ Morgan, *Deterrence: A Conceptual Analysis*, pp. 31-40.

¹¹⁷ *Ibid.*, p. 42; and Morgan, *Deterrence Now*, p. 84.

In addition, military activities for Phase 1 deterrence also include other preparatory actions for possible combat operations, including efforts to secure regional base access and over-flight permissions, conducting ISR operations, and, if applicable, engagement and coordination with coalition forces.¹¹⁸ All of these activities require tailored and sustained IO and Strategic Communications campaigns, since these actions can only impact an adversary's cost/benefit calculations if decision-makers are aware that they are taking place. In a crisis, the visible movement of credible, sustainable, and overwhelming combat power to the theater, coupled with observable preparatory actions for the conduct of decisive combat operations, can send strong deterrence signals to the adversary.

Phase 2: Compellence and Escalation Control

Although most analyses of deterrence focus on its application before and during a crisis (Phase 0 and 1), there are still important roles and opportunities for deterrence and other forms of coercion once the conflict has begun. In Phase 2, which comprises the opening stage of conflict, U.S. forces "seize the initiative" by striking quickly to achieve rapid dominance of the battlespace and thereby set the necessary conditions for prompt and decisive defeat. At this stage of conflict, the use of military force – and the implicit or explicit threat of more to come – can be used for compellence and escalation control.

As we noted in chapter 2, compellence refers to the threat or use of force to persuade an adversary to change its behavior. Phase 2 operations for compellence involve the use of force to inflict punishment and/or deny early benefits to the point at which the opponent decides to give up (or significantly limit) its strategic objectives and seek an end to the conflict. The use of force for compellence is not intended to defeat the enemy; rather, the objective is to convince the adversary that, if it does not change its behavior, more costs will come. The objective is to use the *threat of additional costs* to persuade the adversary to cease aggression.

Like deterrence, successful compellence requires effective strategic communications. If the adversary believes that the United States seeks complete defeat, and perhaps even regime change, there will be little incentive for the regime to halt its offensive. In order to compel, the U.S. must communicate to the adversary that there are acceptable off-ramps for de-escalation and conflict termination short of decisive defeat, and that these options will lead to an acceptable outcome for the regime.

In addition to compellence, another element of Phase 2 operations is escalation control. The concept of escalation refers to the "increase in the intensity or scope

¹¹⁸ *Joint Operations*, Joint Publication 3-0, p. IV-27.

of conflict that crosses threshold(s) considered significant by one or more of the participants.”¹¹⁹ States can escalate a conflict by increasing its intensity (using more force within the current battlespace or using new weapons), by widening the area of conflict (attacking previously untouched areas in the adversary’s territory), or by engaging in “compound escalation” (attacking the opponent’s friends and allies).¹²⁰

Escalation control is especially relevant in Phase 2. As U.S. (and perhaps coalition) forces rapidly move overwhelming combat power into the theater, an adversary might choose to respond by deliberately escalating – or threatening to escalate – the conflict in the belief that it can establish a battlefield advantage, or that escalation might bring a quick end to the war by raising the level of violence to a point at which U.S. leaders might decide that the costs and risks of fighting at the new level are not worth the benefits.

The concept of escalation control is somewhat misleading, as one state can never completely or reliably “control” the incentives or behavior of another sovereign nation.¹²¹ Yet, while a state cannot entirely control another country’s decision calculus, it can influence a leaders’s perceptions about the costs, risks, and benefits of deliberate escalation. Thus, like traditional deterrence, escalation control (a form of intra-war deterrence) seeks to prevent escalation by convincing the adversary that the costs and risks of escalation will outweigh any possible benefits.¹²²

Consequently, a major component of deterrence and escalation control is the possession of *escalation dominance* – the ability to fight and win, or at least do better than the adversary, at higher and more diverse levels of violence.¹²³ Escalation dominance contributes to escalation control by persuading an opponent that escalation has no possible benefits, since the U.S. military can fight effectively and decisively at any level of conflict. Escalation dominance requires signaling to an adversary that the United States has both the capabilities and political resolve to fight at higher levels of violence. In the context of an ongoing conflict, the

¹¹⁹ Forest E. Morgan, et al., *Dangerous Thresholds*, p. 8.

¹²⁰ Herman Kahn, *On Escalation: Metaphors and Scenarios* (New York: Frederick A. Praeger, 1965), pp. 4-6. Kahn’s analysis codes attacking neighboring countries under “widen area,” and attacking non-contiguous friends or allies under “compound escalation.” For the purposes of this study, any attack against a friend or ally not currently involved in the conflict is considered compound escalation.

¹²¹ Forest E. Morgan, et al., *Dangerous Thresholds*, p. xii.

¹²² *Ibid.*, pp. xiii, 22. For a similar view, see Morgan, *Deterrence Now*, p. 105.

¹²³ See, for example, Byman and Waxman, *The Dynamics of Coercion*, pp. 30, 38-44; Forest E. Morgan, et al., *Dangerous Thresholds*, pp. 15-18; and Kahn, *On Escalation*, p. 290.

positioning of additional forces in and around the theater – for example, moving additional Carrier Strike Groups (CSGs) to the region or stationing additional ground forces in the area – can help deter escalation.

From Theory to Practice: Operationalizing Deterrence

The Navy has a long tradition of conducting continuous peacetime operations around the world, as well as being the primary “first responder” to unexpected contingencies. The ability to maintain continuous, combat-credible forward presence, combined with the ability to rapidly surge combat power when the need arises, gives the Navy an important role in deterrence.

That being said, not everything the Navy can do is useful for deterrence, and not everything useful for deterrence can be provided by the Navy. Consistent with the DO JOC, the starting point for our analysis is that *effective deterrence requires all elements of national power*.¹²⁴ Navy contributions are best viewed as one element of a larger deterrence toolbox that includes diplomatic, information, and economic components, as well as important contributions from the other Services.

In order to derive the maritime contributions to conventional deterrence, we first examine deterrence within the broader D.I.M.E. (diplomatic, information, military, economic) framework. This analysis highlights the “whole of government” approach to deterrence, which provides a baseline from which to derive the broader military, and then the maritime, role in the deterrence mission. Our analysis uses insights from the policy and academic literature on deterrence, DoD and Navy guidance (including the DO JOC, the New Maritime Strategy, and the Navy Strategic Plan), and discussions with SMEs.

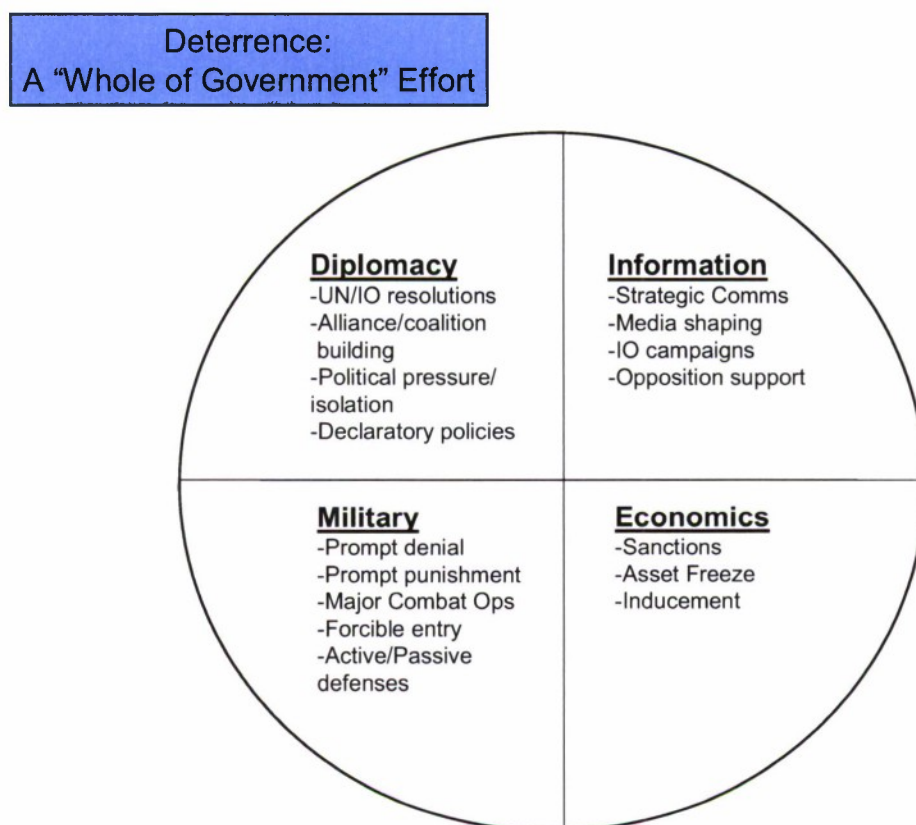
Deterrence and the D.I.M.E.

A “whole of government” approach provides the best possible chance of achieving decisive influence over an adversary’s decision-making calculus. The military undoubtedly plays a central role, as the credible threat of punishment and denial is almost always the most potent mechanism of deterrence. Yet, in an increasingly globalized and interconnected world, non-kinetic tools may be able to play an important role in deterrence. In today’s international environment, a regime

¹²⁴ DO JOC, pp. 3, 12.

considering aggression will have to consider the potentially severe international political and economic consequences of conflict in addition to the pure military costs.

Consequently, in addition to the threat of military denial and punishment, the judicious use of diplomatic, information, and economic tools can provide powerful incentives for restraint. The figure below illustrates some of the most important ways in which all elements of the D.I.M.E. can contribute to deterrence.



The various deterrence tools within the D.I.M.E. framework should not be viewed in isolation. In practice, these tools are used simultaneously, and, according to one important study, "at times their combined impact is greater than the sum of the individual contributions."¹²⁵

Moreover, despite the many non-kinetic components of deterrence, it is important to note that the threat of military force is always present to some extent in any attempt at deterrence. Non-kinetic instruments cannot really be used in isolation, as

¹²⁵ Byman and Waxman, *The Dynamics of Coercion*, p. 32.

even efforts to deter (or compel) through diplomatic or economic means are ultimately backstopped by the implicit or explicit possibility that military force could be used if non-kinetic methods are unsuccessful. While the United States often attempts to deter or compel first through non-kinetic means, these efforts are often conducted in the shadow of U.S. military power. For example, President-elect Barak Obama stated that the United States needs to "apply much tougher diplomacy," with Iran, but also quickly noted that "we should never take a military option off the table."¹²⁶ The military qualifier in this statement suggests that, while President-elect Obama prefers to influence Iranian decision-making through non-military means, Tehran should be aware that military options could be employed if other efforts are unsuccessful.

The fact that a combination of tools is often required for deterrence does not, of course, mean that *any* combination will work. The relative weight and applicability of each of the D.I.M.E. components will change depending on the particulars of each regime. For countries that are already deeply integrated into the global political and financial system, the possibility of political and/or economic repercussions might have a seminal influence on the costs and benefits of aggression. Similarly, regimes seeking further involvement in the current global order might think twice about undertaking aggression or continuing unwanted behaviors or policies (such as developing WMD) because it might bring about sanctions and severely damage their chances of continued integration into the international system.¹²⁷ Libya, for example, chose to abandon its WMD programs in 2003 in part for political and economic benefits, including the removal of financial sanctions and the end of "pariah" status in the international community.¹²⁸

The relative importance of the various kinetic tools within the military part of the D.I.M.E. will also change based on the specific strategic context. Land, air, or maritime power might be more important for deterrence depending on the adversary's geographic location and the target of its aggression. For regimes considering a conventional attack on a neighbor reachable by land, such as a North Korean offensive against South Korea or a Russian assault on Ukraine, ground power would be more immediately applicable. On the other hand, China would

¹²⁶ Transcript of conversation between Wolf Blitzer and President-elect (then Senator) Barak Obama, available at <http://thepage.time.com/obama-on-cnns-situation-room/>

¹²⁷ On the role of economic and political considerations in decisions about nuclear proliferation, see Etel Solingen, *Nuclear Logics: Contrasting Paths in East Asia and the Middle East* (Princeton: Princeton University Press, 2007).

¹²⁸ On the Libya case, see, for example, Bruce W. Jentelson and Christopher A. Whytock, "Who 'Won' Libya? The Force-Diplomacy Debate and its Implications for Theory and Policy," *International Security* (Winter 2005-2006), pp. 47-86; and Dafna Hochman, "Rehabilitating a Rogue: Libya's WMD Reversal and Lessons for U.S. Policy," *Parameters* (Spring 2006), pp. 63-78.

have to cross water to invade Taiwan, and therefore maritime power would play a prominent role.

Military Contributions to Deterrence

Within the military component of the D.I.M.E., no single Service has a monopoly on conventional deterrence. Each Service makes important contributions that, when taken together, can create powerful incentives for restraint. A multi-Service approach is especially important at the conventional level. Since conventional deterrence is based largely on deterrence by denial – convincing potential aggressors that they will not be able to achieve their objectives – it depends on the threat to rapidly engage the opponent in combat. As a result, the credibility of conventional deterrence – and execution of the threat if deterrence fails – involves more traditional war-fighting issues such as access to the theater (which could entail forcible entry), regional basing and over-flight permissions, and re-supply (including protection of APODs and SPODs).

Thus, compared to deterrence by punishment, which relies primarily on precision strike capabilities, deterrence by denial involves a number of complicated logistical issues that could impact an adversary's calculations about its chances of success. With deterrence by denial, an adversary not only might question U.S. political willpower to respond, but, equally important, it could question whether we *can* respond, and, if so, *how quickly* we can get there. These kinds of calculations will be especially important for adversaries hoping to achieve a *fait accompli*, as this strategy is predicated on the ability to strike quickly and achieve victory before substantial U.S. forces can be deployed to the region.

In order to derive the overall military, and then the specific maritime, contributions to conventional deterrence, we developed a list of "abilities" that military assets and operations can communicate to potential adversaries. This approach reflects the fact that credible deterrence must be communicated, and that the military's primary contribution to deterrence is through fielding capabilities, and conducting visible operations with those capabilities, that convey information about our ability to impose punishment and deny benefits, as well as information about U.S. global interests, commitments, and resolve.

Drawing on relevant deterrence literature and DoD publications, we identified 11 specific abilities that the military could communicate to potential opponents. These abilities, if properly signaled, can affect a leader's mental cost/benefit calculations about conventional aggression.¹²⁹ In no particular order, they are:

- Prompt denial/defeat
- Prompt punishment
- Expression/demonstration of U.S. commitments, interests, and resolve
- Forcible entry
- Project and sustain power without footprint
- Mobility and reach within and between AORs
- Flexibility/scalability for proportional response
- Rapid response/reinforcement from CONUS
- Regime removal
- Active/passive defenses
- Major combat operations

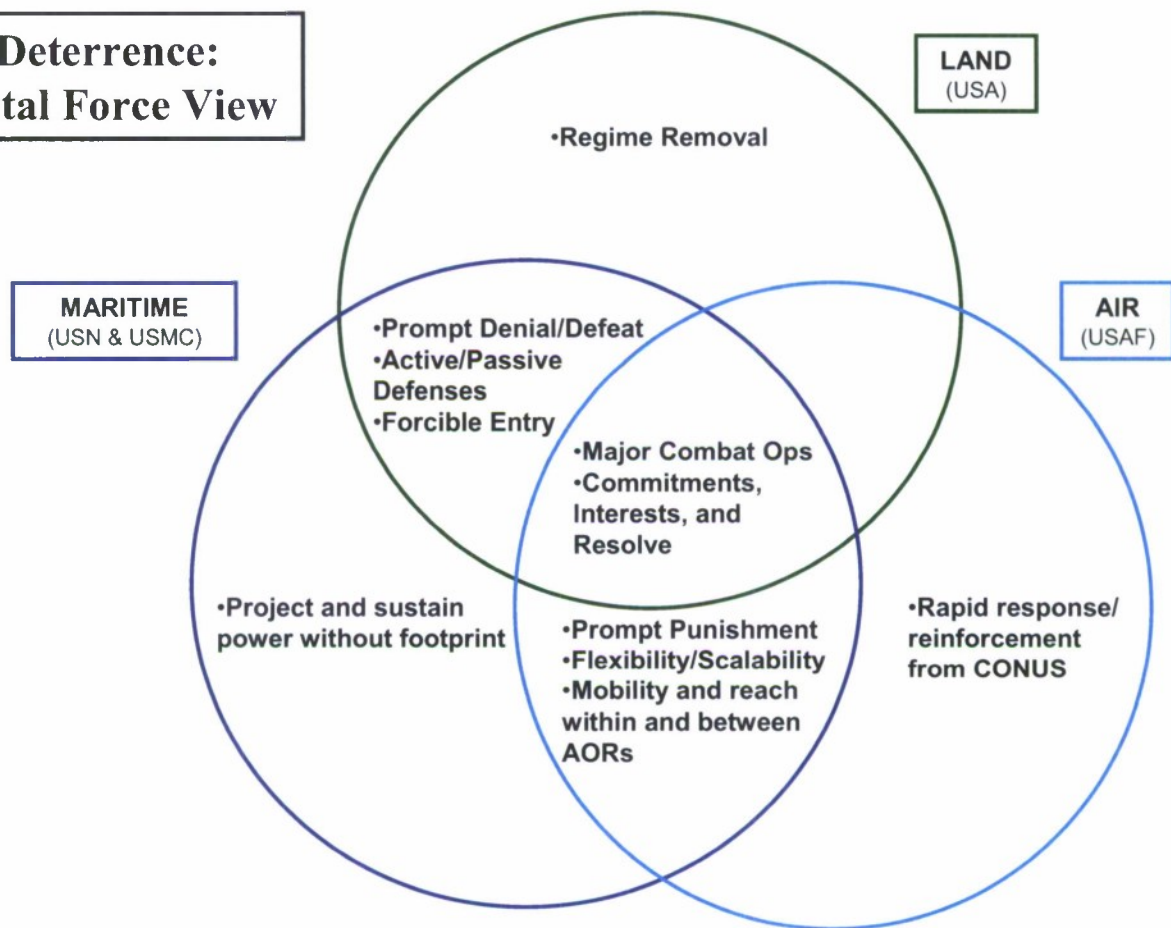
Although each Service is somewhat capable of communicating all of these abilities, certain abilities can be more effectively and efficiently communicated – and, if necessary, conducted – by land, air, or maritime power. The framework below, which builds upon earlier CNA research,¹³⁰ arranges these abilities according to compatible Service roles and missions.

The abilities have been placed in discrete locations in the framework, but this does not mean that other Services are incapable of communicating or carrying out a particular ability. What it does mean, however, is that certain Services have an *overall comparative advantage*. By using such a model, a balanced force can be created that properly and efficiently utilizes the various contributions of each of the Services.

¹²⁹ We say that they *can* have an impact, rather than they *will* have an impact, because the specific effect of any particular signal will depend on the particular regime and strategic context. Depending on the specific circumstances, certain signals, and combinations of signals, will be more relevant and useful than others. Our objective is to identify *all* of the relevant signals that military capabilities and operations can send for the purpose of deterrence, and therefore we do not make claims about which signals are likely to be most effective in any particular situation.

¹³⁰ See David A. Perin, *Aircraft Carriers: Where Do They Fit in the Nation's Aviation Force Structure?* CNA Occasional Paper, October 1993, p. 4; and Whiteneck, *Naval Forward Presence and Regional Stability*, p. 10.

Deterrence: Total Force View



This framework demonstrates that most deterrence abilities can be communicated by at least two Services. This conclusion should not be surprising, as military strategy and strategic planning for deterrence have always emphasized a multi-Service approach. During the Cold War, the force posture for nuclear deterrence was based on a strategic triad of land-, air-, and sea-based nuclear weapons. In that era, an integrated multi-Service posture contributed to deterrence by ensuring that, no matter what the Soviets did, the United States would retain sufficient nuclear capabilities to inflict a devastating retaliation.¹³¹

¹³¹ During the Cold War, this was called “Assured Destruction,” and it was used as a metric for determining how many nuclear weapons the U.S. needed for deterrence. The criterion for Assured Destruction was that the U.S. must be able to withstand a massive Soviet nuclear first-strike and still have residual forces capable of destroying roughly 50% of Soviet industry and 25-30% of the population.

In the current international security environment, the United States has an important advantage in that it can use multiple conventional options to inflict punishment and deny benefits. By presenting a “united front” of dominant land, air, and sea power, the military can help convince potential adversaries that there are no good conventional options to offset, hinder, or otherwise “design around” a U.S. response to aggression.

In the remainder of this chapter, we briefly analyze those abilities in which maritime power does not play a significant role. We do not contend that maritime forces are incapable of communicating this information, only that other Services are in general better suited. We will examine the abilities that maritime power can best communicate in the following chapter.

Regime removal

Regardless of ideological or religious beliefs, leaders typically place great value on their hold on power. Although some leaders have occasionally made remarks suggesting that they are willing to sacrifice themselves and their country for larger religious or political objectives, there is little historical evidence of leaders actually engaging in such suicidal actions. Although it is not completely out of the realm of possibility that some leader has no worldly values and is therefore truly undeterrable, according to Sir Michael Quinlan,

Only the truly insane have no sense of weighing consequences; and to have a different value-system does not mean having none, no currency in which the risk of unacceptable disadvantage can be posed. One may narrow the point down further: it is hard to think of any instance in history of a state or similar power grouping that had no assets which it wished to retain, no collective concern for the lives of its members and no interest in the survival of its ruling regime...There is no such thing as an undeterrable state.¹³²

Although the term “regime change” has gotten a bad connotation in the wake of the war in Iraq, in reality the current stigma applies only to *preemptive* or *preventive* regime change. In contrast, the threat of regime change as a deterrent – in other words, regime change as a possible consequence of aggression – remains a valid and useful tool. In fact, if an adversary’s transgression is heinous enough (such as genocide or the use of WMD), there might even be an international outcry demanding an ouster of that country’s leaders.

Assuming that a leader can be deterred, and that maintaining a firm grip on power is one of the most highly valued objectives, the threat of regime removal can be a powerful deterrent. This threat may be especially relevant for regimes that brutal-

¹³² Quinlan, “Deterrence and Deterrability,” pp. 6-7.

ize and kill their own people, as they are perhaps less likely to be influenced by the threat of attacks on civilian infrastructure and industry, or even on the military.

The threat of regime removal – and the execution of the threat if deterrence fails – falls almost completely in the province of land power. Taking down (and ultimately replacing) a standing regime cannot be accomplished from the air or with minimal boots on the ground. Regime removal is almost certain to be fiercely resisted by some, and while air power can be a useful component, the military credibility of this threat ultimately depends upon an opponent's perceptions of U.S. ground strength.

Finally, it is important to note that the threat of regime removal must be approached carefully, especially if the country has chemical, biological, or nuclear weapons. When a nation has WMD – especially nuclear weapons – it may be dangerous to put the leadership into a position where they believe that they have “nothing left to lose.” A leader facing almost certain removal may be tempted to use nuclear weapons in a last-ditch effort to prevent the loss of power, or simply as a “Samson option” to exact revenge. In addition, a nuclear-armed regime about to lose power may also be more inclined to sell or give nuclear weapons to terrorists or other allies.

Rapid response/reinforcement from CONUS

The ability to rapidly surge and reinforce military power from the United States to a combat zone is an essential element of deterrence and escalation control. Rapid response and reinforcement from CONUS can help shift the local balance of power to favor the United States, and this can significantly affect an adversary's judgment about its own ability to achieve its objectives.

This capability could be particularly pertinent in situations where the United States is attempting to deter a near-peer competitor that has substantial conventional forces, as the opponent may believe that it has the capability to defeat those U.S. and allied forces that are already in or near the theater. By communicating that the United States can quickly project CONUS-based combat power anywhere in the world, a strong near-peer opponent cannot plan to encounter forward-deployed forces without having also to contend with fast-arriving reinforcements from CONUS.

In Phase 2, rapid response/reinforcement capabilities can help control escalation by signaling that the United States has plenty of additional combat power it can use if the opponent chooses to escalate. If an opponent is made aware that the U.S. can quickly reinforce and re-supply the kinds of forces that are already engaged in combat, as well as introduce new capabilities into the battlespace in response to vertical, horizontal, or compound escalation, that opponent may be less likely to escalate because doing so would not bring any tactical or strategic advantage.

Rapid response/reinforcement from CONUS is largely based on air power, and therefore the Air Force has a comparative advantage in communicating and conducting this ability. The Air Force, supported by a robust global refueling capacity, has global strike capabilities with U.S.-based B-52s and B-2s.¹³³

¹³³ The Navy's Flexible Response Plan, instituted after the opening stages of OPERATION ENDURING FREEDOM and OPERATION IRAQI FREEDOM, has significantly enhanced the ability to surge a large number of Carrier Strike Groups and Expeditionary Strike Groups from CONUS. While the Navy has significantly improved its CONUS-response capability, the Air Force still retains a comparative advantage: air travel is faster than sea travel, and the Air Force has much more experience in CONUS response.

Maritime Contributions to Deterrence

The framework developed earlier indicates that maritime forces can play an important role in communicating many of the abilities that contribute to deterrence. Out of eleven abilities identified, maritime forces contribute to nine.¹³⁴ The first section of this chapter analyzes those abilities in which maritime power can play a part. The second section examines the unique contribution of maritime power to deterrence – the ability to project and sustain power without a footprint on land – and discusses how it provides some important contributions to deterring future adversaries.

Expression/demonstration of U.S. commitments, interests and resolve

According to one well-known scholar, credibility is the “magic ingredient” of deterrence.¹³⁵ In order to successfully deter, an adversary must believe that the United States has the necessary military capabilities and political resolve to use force to deny benefits and/or impose punishment. For the United States, one of the primary challenges to successful deterrence – both conventional and nuclear – in future scenarios is likely to be convincing potential adversaries of our political resolve to use force, especially if doing so runs the risk that the United States might also suffer political, financial, and human costs. According to Colin Gray, when it comes to credibility, “an ounce of will is worth a pound of muscle.”¹³⁶

¹³⁴ Based on our framework, maritime forces contribute to communicating the following abilities: prompt denial/defeat; prompt punishment; expression/demonstration of U.S. commitments, interests, and resolve; forcible entry; mobility and reach within and between AORs; flexibility/scalability; active/passive defenses; major combat operations; and project and sustain power without footprint. Maritime forces do not play a significant role in regime removal or rapid response/reinforcement from CONUS. Of course, we are not suggesting that maritime forces are completely incapable of these abilities – only that air and land forces are generally better able to communicate, and if necessary, conduct, them.

¹³⁵ Freedman, *The Evolution of Nuclear Strategy*, p. 96.

¹³⁶ Colin S. Gray, “Deterrence Resurrected: Revisiting Some Fundamentals,” *Parameters* (Summer 1991), p. 15.

Similarly, as Daniel Byman and Mathew Waxman have argued,

Will and credibility matter as much as, and often more than, the overall balance of forces...Though the coercing power may possess an apparent supremacy of strength, it often lacks the ability or will to apply that strength and inflict costs. Domestic constraints and the concerns of allies often hinder the coercer's ability to counter-escalate by holding hostages, killing soldiers, splitting coalitions, or otherwise inflicting costs on the coercer.¹³⁷

In terms of political credibility, the military contributes to deterrence by communicating information about U.S. global interests, commitments, and, resolve. Because credibility is such a central element of successful deterrence, all of the Services play an important role. That said, "nothing expresses commitment as effectively as people on the ground."¹³⁸ When the political interests are vital enough, the alliance relationship supportive enough, and the military reasons strong enough, the act of placing U.S. troops on the ground in harm's way is the clearest sign of America's political commitment to the security and stability of a specific ally or entire region. Forward bases are a very strong signal of the U.S. interest and commitment to shape the political environment and deter conflict. According to Barry Blechman and Stephen Kaplan,

At the extreme, forces deployed abroad are automatically involved in outbreaks of conflict, as when they are located at the edge of a demilitarized zone across a traditional invasion route. In less extreme and more frequent cases, the fact that military personnel (and often their dependents) are located in an area of potential conflict means that the state making the deployment can ill afford to shut its eyes to potential threats in the region. Hence the location of forces abroad can sometimes support a nation's policies more directly and effectively than a force of equal capability which is kept at home, even when provisions are made to move the latter force quickly and effectively when needed.¹³⁹

While land-based presence has traditionally been the most effective and desirable signal of credible deterrence (and assurance), there have been growing trepidations in recent years about the permanent presence of American forces on foreign soil.¹⁴⁰ Since the end of the Cold War, and especially since 9/11, the United States

¹³⁷ Byman and Waxman, *The Dynamics of Coercion*, pp. 31-32.

¹³⁸ Dismukes, *National Security Strategy and Forward Presence*, p. 54.

¹³⁹ Blechman and Kaplan, *Force Without War*, p. 6.

¹⁴⁰ See, for example, Eugene Gholz, Daryl G. Press, and Harvey M. Sapolsky, "Come Home America: The Strategy of Restraint in the Face of Temptation," *International Security* (Spring 1997), pp. 5-48; and Barry R. Posen, "The Case for Restraint," *American Interest* (November/December 2007), pp. 7-17.

and its allies have become increasingly concerned about the potential negative consequences, or “blowback,” of forward deployed U.S. military bases. Some host nations – especially those that are on the front line against Islamic extremist terrorism – are becoming increasingly concerned about the political and security ramifications of a permanent and visible U.S. military presence on their soil.¹⁴¹

If permanent land-based military installations are becoming increasingly untenable in many countries and regions, an alternative approach is visible U.S. naval presence. When maritime power is used, countries can keep from appearing to have an overly close relationship with the United States that might spark new, or enflame ongoing, socio-cultural tensions and violence, while at the same time enjoying the security benefits of U.S. forces in the area vis-à-vis regional adversaries. In fact, if there is a continuing trend in which countries want completely new U.S. security commitments and/or strengthened assurances of existing guarantees, but at the same time do not want to host U.S. forces on their soil, maritime power may increasingly become the primary military instrument used to simultaneously assure allies and deter adversaries.

As discussed in earlier sections of this study, an important way in which maritime forces communicate U.S. interests, commitments, and resolve is through repeated peacetime (Phase 0 general deterrence) engagement with regional friends and allies, including exercises, port visits, staff talks, and general forward presence. These activities, if combined with tailored IO campaigns to publicize that they are taking place, can send signals to potential aggressors about where our interests and commitments are, and consequently where U.S. resolve to use force is likely to be high. In Phase 1 and 2, maritime forces contribute to immediate deterrence, compellence, and escalation control by quickly moving combat-credible power to the region. Rapid, visible power projection in the theater can send important signals in tense crises (Phase 1) and in the opening stages of conflict (Phase 2) that the United States is both willing and able to use substantial force to protect its interests.

Prompt denial/defeat

If an adversary is seeking opportunistic aggression, conventional deterrence hinges largely on the ability to deny a relatively quick and low-cost victory. As long as the regime believes that it cannot achieve gains quickly and at a minimal cost, deterrence is likely to be strong. However, if a regime is seeking to prevent some perceived loss, successful deterrence, if it can be achieved in such cases, requires a credible threat to completely defeat the adversary at the outset of conflict. In both situations, the ability to promptly engage the enemy on the battlefield is para-

¹⁴¹ *Integrated Global Presence and Basing Strategy Report*, Department of Defense, 2004.

mount, and therefore it is essential that U.S. military forces are already in the area or can be rapidly deployed to the theater.

Since conventional deterrence is based on the threat of prompt denial/defeat, one important aspect of an adversary's judgment of the credibility of this threat will likely be its assessment of how quickly U.S. forces can respond. Conventional deterrence puts a premium on the ability to promptly respond to aggression, and therefore forward-deployed, combat-credible forces are likely to be the most potent deterrent. These forces provide the initial firepower to blunt an offensive, and they can hold the door open for the arrival of additional forces. By communicating that the United States has the ability to swiftly engage the opponent's forces, we can credibly threaten to deny an aggressor its best chance for success – a swift attack with little or no warning.

The relative advantage of land or maritime power for prompt denial/defeat largely depends on where the crisis occurs. If tensions rise in an area where there is already a sizable land force, such as on the Korean Peninsula, the Army will obviously play the leading role in deterring aggression. However, outside of a handful of places where substantial ground forces are already stationed, the Army is unlikely to be the dominant Service in the conventional deterrence equation.

In situations where significant ground forces are not immediately available, maritime power (USN and USMC) is likely to play the leading role in the threat of prompt denial/defeat. For example, maritime forces can employ cruise missiles and tactical carrier-based air power to blunt an opponent's advance, as well as insert Marines on land to rapidly engage the opponent's ground forces.

The primacy of maritime and land forces in prompt denial/defeat does not mean that air power does not have a useful role to play. Rather, it means that land and especially maritime forces have important comparative advantages. While the threat of air strikes is likely to be an important element in a leader's cost/benefit calculus, conventional deterrence (and, more broadly, conventional wars) relies primarily on the threat and/or use of ground power.¹⁴² Consequently, maritime

¹⁴² Two commonly cited cases of the apparent decisiveness of air power in coercion and defeat are OPERATION ALLIED FORCE (NATO's bombing of Kosovo in 1999) and the use of the atomic bombs against Japan to end the Pacific War in 1945. However, some analysts and scholars have cast doubt on these claims. In the Kosovo case, some researchers contend that the possibility of a ground invasion ultimately convinced Milosevic to capitulate. Regarding Japan, an emerging body of scholarship based on newly available archival evidence suggests that Japan's decision to surrender was based more on the Soviet Union's declaration of war against Japan on 8 August 1945 than on the use of atomic bombs on Hiroshima and Nagasaki. These cases do not mean that air power was irrelevant, only that it was not in itself the decisive mechanism. See, for example, Daniel L. Byman and Mathew C. Waxman, "Kosovo and the Great Air Power Debate," *International Security* (Spring 2000), pp. 25-28; Ward Wilson, "The Winning Weapon? Rethinking Nuclear Weapons in Light of Hiroshima," *International Security* (Spring 2007), pp. 162-179;

power has an advantage over air (and land) forces in the threat of denial/defeat in that it has both air and ground elements.

Prompt punishment

Although the concept of conventional deterrence is largely based on deterrence by denial, the threat of deterrence by punishment should not be overlooked. In an increasingly diverse and multipolar world, the United States may face a variety of adversaries with different sensitivities and value structures. For some future opponents, the threat of punishment might be a more credible and effective deterrent than denial. If there are tangible assets that are highly valued, and if the United States can identify those assets and effectively communicate a credible ability to destroy them if certain actions are taken, the adversary will have a strong incentive for restraint.

With prompt punishment, the objective is to convince potential opponents that the United States has a ubiquitous ability to impose unacceptable costs for aggression at any time and place. Like the threat of prompt denial/defeat, the deterrent impact of prompt punishment can be enhanced if the ability to impose costs is demonstrated or otherwise made visible in both Phase 0 general deterrence and, if necessary, in Phase 1 immediate deterrence.

It is important to note that the concept of prompt punishment is based on the notion that costs should be inflicted as soon as deterrence fails. However, there is really no logical reason why retaliatory strikes must be imposed in the immediate aftermath of a deterrence failure. Deterrence by punishment is based simply on the threat to inflict costs that outweigh the benefits of aggression; theoretically, at least, there is no reason why a state would be less deterred if the leadership believed that the costs would be imposed a week after the transgression rather than on the same day. As long as the regime believes that the threat is credible (in terms of both capability and political resolve), it should not matter when it is imposed.

In practice, however, the threat of swift punishment might have an important deterrent impact on a leader's cost/benefit calculations. The possibility of immediate action might weigh more heavily on a leader's mind than the prospect of one that is further off in the future, even though there is no logical basis for it to do so. This issue highlights the fact there can be a gap between the theory and practice of deterrence. Although there is no logical reason why punishment must be swift, there may still be intangible, psychological reasons why the threat of *prompt* punishment is valuable for deterrence.

and, more generally, Pape, *Bombing to Win*, and John J. Mearsheimer, *The Tragedy of Great Power Politics* (New York: W.W. Norton and Co., 2001), ch. 4.

This ability is best communicated by Air Force and Navy precision strike capabilities in the form of tactical air power and sea- and air-launched cruise missiles. These capabilities can be employed globally within a relatively short timeframe and, in the case of the Navy, do not require land-based support facilities. In Phase 0, these abilities can be communicated by the forward presence of precision strike capabilities, IO campaigns that publicize accuracy and rapid response times, and visible exercises. In Phase 1, the threat of punishment is communicated by the visible and deliberate movement of alerted tactical aircraft and sea-based strike platforms to the theater, combined with statements of resolve by political leaders.

Forcible entry

A credible threat of deterrence by denial requires communicating an ability to rapidly access and project power in the region. If a state believes that U.S. forces are unable to respond quickly, or thinks that it can limit U.S. power projection through anti-access capabilities or by coercing our regional allies, it might be more inclined to attack. Thus, forcible entry contributes to deterrence by helping to convince potential aggressors that U.S. military forces can quickly project combat power in the region, and that there is nothing they can do to prevent or hinder our response to aggression.

The Army can rapidly put boots on the ground with paratroopers, and naval amphibious capabilities can insert Marines and deliver supporting materiel. Given the importance of being able to rapidly project conventional power – especially ground forces – in the theater, it is beneficial to have more than one Service that can conduct forcible entry. However, compared to Army paratroopers, sea-based forcible entry has an important comparative advantage: whereas paratroopers are somewhat limited in how much and what type of capability they can bring with them, maritime forces can bring substantial combat power, including indirect fire, increased mobility, armor, and more depth of sustainment.

Mobility and reach within and between AORs

In conventional deterrence, the emphasis on the local balance of power indicates that successful deterrence (and escalation control) depends on the ability of U.S. forces to quickly appear on the scene. Forward-deployed forces are the most capable of being rapidly sent from areas of low tensions to a region where an acute political/military crisis is taking place.

The ability to move forces within and between AORs contributes to conventional deterrence by signaling that the United States can rapidly buttress the local power balance. By communicating that additional forces can be quickly brought from one region to another, the United States is essentially demonstrating that it can

connect its global forward-deployed forces. In this respect, the “local” balance of power is in effect enlarged to encompass almost all U.S. combat forces deployed abroad (in addition to rapid-response forces from CONUS), since they can be brought to any region at a moment’s notice. This ability may be especially important in areas where U.S. forces have little or no presence; if an adversary can be convinced that combat-credible power from other regions can be promptly deployed, it may be less likely to believe that there is ever a favorable local balance of power that provides opportunities for a successful *fait accompli*.

Maritime and air power are particularly useful for this function because they do not have to be committed to a particular geographic region for the entire length of a deployment. They can quickly shift between AORs, or move within an AOR, in response to developing political/military dynamics.¹⁴³

Flexibility/scalability for proportional response

Effective deterrence and escalation control require a wide range of capabilities that can meet various levels of aggression. Because the United States can choose from among a range of responses, an adversary cannot hope to develop a strategy that puts U.S. leaders in an “all or nothing” position. Flexibility/scalability therefore contributes to deterrence credibility by minimizing the risk that an adversary might be able to find and exploit a gap in U.S. capabilities or war-fighting strategies.

Maritime and air power are particularly useful for “tailoring” deterrence to a wide variety of adversaries and possible contingencies. With these forces, decision-makers can choose the overall size of the deterrent force, and “mix-and-match” denial and punishment capabilities to meet specific deterrence requirements. Moreover, they provide U.S. leaders with a range of deterrent options within the overarching threat of punishment and denial, including blockades, no-fly zones, and targeted special operations.

Major combat operations

A credible deterrence by denial strategy depends on convincing all possible attackers that the United States has the ability (and will) to fight a large-scale, protracted war in any global environment. This ability goes beyond threatening merely prompt denial and punishment; it is predicated on the ability to fight a potentially long, costly, and bloody conventional war.

¹⁴³ For example, in DESERT STORM and OEF/OIF, air forces were moved from EUCOM to CENTCOM, and maritime forces were moved from PACOM to CENTCOM.

An MCO (Major Combat Operations) ability, if effectively communicated, is most useful for deterring regimes motivated to prevent a perceived loss. As discussed earlier, a regime that is compelled to aggression by the fear of losing something of great value may choose to act in the belief that, while it cannot attain its objectives quickly, the issue at stake is important enough to act in the hope that victory can be achieved in the long run. These regimes, if they can be deterred at all, must be convinced that the United States is willing and able to fight and win a major protracted war.

Inherent in the concept of MCO is an integrated joint force consisting of air, land, and maritime power. All components of military power help communicate the ability to fight and win a large-scale conventional war. The Army and Marine Corps provide the essential ground power upon which a successful MCO ultimately depends, and the Air Force and Navy provide rapid-response, re-supply, and precision strike capabilities.

Active/passive defenses

Active and passive defenses have become an increasingly integral component of deterrence. By eliminating, or at least minimizing, threats to U.S. forces and infrastructure abroad, regional allies, and CONUS, active and passive defenses reinforce the credibility of U.S. commitments, increase war-fighting capacity, and contribute to coalition management and leadership.

At the most basic level, active/passive defenses contribute to conventional deterrence by helping to deny an opponent the ability to use force to achieve its political and military goals.¹⁴⁴ If U.S. defensive capabilities are effectively and credibly communicated, an adversary may have less incentive to strike because it would not be able to destroy or degrade U.S. war-fighting capabilities and infrastructure in the region, coerce U.S. friends and allies to stay out of the conflict, or attack (or threaten to attack) CONUS for strategic coercion and intra-war bargaining advantages.

Perhaps the most important contribution of active/passive defenses to deterrence is their potential impact on perceptions of U.S. resolve. From this perspective, the contribution of defensive capabilities to deterrence lies in how the ability to eliminate – or at least limit – the costs that an adversary can inflict affects an opponent's perceptions of U.S. political willpower to use force.

As discussed earlier in this study, perceptions of American political resolve are largely based on assessments of the willingness of the public and political elite to withstand the financial and human costs of war. The perception of weak U.S. re-

¹⁴⁴ DO JOC, p. 26.

solve is mostly due to the belief that the United States is extremely sensitive to casualties, in terms of both American lives lost in conflict and collateral damage.¹⁴⁵ In this context, active/passive defenses – especially missile defenses – can contribute to perceptions of a strong U.S. resolve by helping to decrease some of the risks and potential costs involved in carrying out our deterrent threats. If the U.S. can send the message that it has credible defensive abilities, an opponent may be more likely to believe that the U.S. would stand firm in a crisis and use force if necessary.

The impact of missile defense on credible deterrence ultimately depends on the opponent's belief in the operational effectiveness and reliability of U.S. defensive abilities. If an opponent is not convinced that these defenses will work at all, or if a leader believes that they are not effective enough to limit damage to a very low level, missile defense is unlikely to have a significant impact on deterrence. Moreover, even if a regime believes that U.S. defensive abilities will work, a determined leader might then seek ways to offset the defensive systems, such as acquiring additional missiles to offset the defenses, adding MIRVs (multiple independently-targeted reentry vehicles), decoys, or chaff to its existing missile arsenal, or using terrorism or other asymmetric tactics to attack (or threaten to attack) "soft" targets.

The Unique Contribution of Maritime Power to Deterrence: The Ability to Project and Sustain Power Without a Land-Based Footprint

The deterrence framework developed in the previous chapter demonstrates that maritime power can help communicate – and, if necessary, execute – many of the abilities necessary for successful conventional deterrence. But it also shows that, overall, it shares most of the abilities with the other Services. What, then, is the unique role of maritime power?

Compared to air and land forces, maritime power has two inter-related characteristics that make it particularly useful to the modern conventional (as well as nuclear) deterrence mission:

- Maritime forces can project and sustain forward-deployed, combat-credible power in peacetime, crises, and war
- Maritime power is minimally intrusive; in other words, it does not require a footprint on land

¹⁴⁵ The perception of the United States as a "paper tiger" may have decreased in the aftermath of 9/11, but continued debate about the wisdom of OIF and repeated calls for a speedy withdrawal from Iraq may have the unintentional effect of reinforcing this perception.

The fact that naval forces can “loiter” *and* be minimally intrusive is an important and unique contribution to deterrence. The Army can loiter, but it cannot be minimally intrusive; the Air Force can be minimally intrusive (although, because it still needs some land-based infrastructure, it is more intrusive than maritime forces), but it cannot loiter. Only naval forces can do both simultaneously.

These unique characteristics are likely to be especially useful for conventional deterrence. Given that an adversary is likely to pay close attention to the local balance of power, naval forces are important because they can rapidly respond to an emerging crisis by bringing U.S. combat power to places where none existed before, or by augmenting existing forces already in theater to further swing the local power balance in the United States’ favor. The ability to quickly deploy, and indefinitely sustain, power in a region helps ensure that an opponent cannot hope to wait out U.S. forces in the belief that at some point there will be a favorable “window of opportunity” for aggression.

The ability to sustain minimally intrusive power can be a valuable asset in both general and immediate deterrence (Phases 0 and 1). In Phase 0, continual yet mobile forward presence can give friends and allies the assurances they desire without requiring an expensive and politically sensitive permanent presence on land. Repeated peacetime engagements with regional partners, combined with the knowledge that combat-credible U.S. military power is always relatively nearby if trouble arises, can both assure allies and deter adversaries.

Naval power’s unobtrusiveness is also useful for crisis management in Phase 1 and for compellence and escalation control in Phase 2. In an acute crisis, the Navy can be the optimal mechanism to signal credible deterrence without also unnecessarily provoking the adversary. Naval forces can get close enough to the possible combat area to communicate credible threats of prompt denial and/or punishment, while at the same time not getting so close that the leadership fears an impending U.S. attack and decides to strike first.

This is also useful in Phase 2, as efforts to employ compellence and signal escalation dominance (which, as discussed earlier, is an important mechanism of escalation control) run the risk of inadvertently triggering the actions that we hoped to prevent. Although this risk cannot be completely avoided in Phase 2, naval forces can, at least, sustain a visible presence in the theater to signal the threat of additional costs without having to be stationed too close to the immediate battlespace.

Conclusion

Deterrence is a complex and subjective enterprise. Despite decades of analysis, there has yet to be a “magic formula” devised to provide defense planners with the optimum mix of capabilities needed to successfully deter. The answer to the perennial question, “How much is enough?” remains elusive.¹⁴⁶ However, while there is no definitive way to know the proper number and mix of capabilities required to deter, we can identify the kinds of information that we want to send to adversaries, and the various capabilities, activities, and operations that can be used to communicate this information. To that end, this study has examined the basic logic and strategy of conventional deterrence, identified the abilities we want to communicate, and analyzed which Services are best suited to send these messages.

A logical step for further research might be to analyze the specific Navy hardware and weapons systems that contribute to these broader abilities. Which Navy capabilities, for example, play a central role in the ability to threaten (and, if necessary, impose) prompt denial/defeat? An analysis of the range of Navy capabilities within the context of the 11 deterrence abilities identified in this study might reveal both overlaps and gaps in the Navy’s deterrence-relevant capabilities.

An example of a weapons systems with implications for deterrence is the proposed conventional Trident missile (CTM). The outcome of this issue is likely to have a major impact on the Navy’s role in deterrence and regional conflict. At this point, it is difficult to predict the outcome of this issue in a new presidential administration. Although few question the need to have some form of prompt global strike, and almost all would prefer to have a conventional, rather than only a nuclear, option to rapidly attack distant and fleeting targets, the most effective weapons system to provide this capability has yet to be finally determined. It would be interesting to study this issue from the perspective of the Navy’s role in conventional and nuclear deterrence.

Thus, despite a vast literature on deterrence, there is room for continued research and analysis. For example, while some have claimed that rogue states and terrorists are undeterrable, there is an emerging body of research indicating that this

¹⁴⁶ For an examination of this fundamental question during the Cold War, see Alain C. Enthoven and K. Wayne Smith, *How Much is Enough? Shaping the Defense Program, 1961-1969* (New York: Harper and Row Publishers, 1971).

contention may not be entirely correct.¹⁴⁷ This kind of research is especially relevant today, as broad decisions about which adversaries are possibly deterrable can have important consequences on overall foreign policy and military strategy, as well as more specific implications for the military regarding contingency planning, training, procurement, and forward presence.

In an era of rising powers, rogue states, and transnational terrorism, deterrence dynamics are much more complex than they were in the bipolar Cold War structure. Today, U.S. deterrence efforts are directed at a variety of nations and non-state actors, each with varying motivations, strategic cultures, value structures, and objectives. The need to simultaneously communicate tailored deterrence messages to a number of entities scattered throughout the world creates new problems and opportunities that have yet to be fully examined.

¹⁴⁷ See footnote 18.

